A STUDY OF THE CAMBRIDGE SUB-REGION

PART TWO: SECTION 1

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Department of the Environment

A STUDY OF THE CAMBRIDGE SUB-REGION

A Report by
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of Manchester University

PART TWO

SECTION 1

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Introduction

Part One of this Report contains a non-technical presentation of my major arguments and recommendations about the Cambridge Sub-Region. In this second part there is a great deal more than that. We look in much more detail not only at the problems considered in Part One but also at many other features of the sub-region. It is here, too, that we present most of our factual data, and an account of how we evolved and evaluated alternative strategies for the sub-region, before, with all the evidence before me, I made my final decision about which strategy to recommend.

The writing of this present volume was completed on August 22nd, 1973, but the immense task of typing it, and producing complete copies for the sponsoring authorities, has necessarily taken time. During this period I have received valuable assistance from my colleagues Mr. Alasdair Traill and Mr. Roger Bristow, who helped in the standardisation of the statistical presentation and other technical matters of presentation. It is no disparagement of their efforts when I say that my greatest debts are to my Research Assistant Mr. Michael Bridges, who has read the typescript, checked the diagrams and appendices, and verified the cross-references, and once more to my secretary Mrs. Margaret Barrow, who has supervised or performed all of the typing and duplicating while still performing her other duties.

During this period, too, there has been unexpected publicity and controversy about the relevance of this Report to a decision about the Fitzroy Street–Burleigh Street project. My views on this are wellknown, and it would be inappropriate for me to repeat them here. I have, however, added a short postscript to the last chapter.

I must thank Miss Ruth Gasson of the Department of Land Economy in the University of Cambridge for allowing me to draw upon her work, and especially for Appendix 4.

I have to thank the Secretary of the British Association for kindly allowing me to use maps showing the shrinkage of the Fens. These have been taken from the Association's volume *The Cambridge Region* (1965). I must also thank Mr. E. R. S. Whitefield of Distribution Research Limited, for providing me with data about shopping turnover.

J. Parry Lewis
University of Manchester
October, 1973

A study of the Cambridge sub-region

PART TWO : SECTION 1

Chapter 9

The population of the sub-region

In Part One of this Report we have been able to avoid presenting a precise definition of the sub-region. Now, since we need a statistical study, we have to define its boundaries. For most purposes these have been based on an amalgamation of employment exchange areas, which are useful when we study the economy of the sub-region and its constituent parts. On the other hand, we have better population data for a different set of boundaries, based on local authority areas.

The two sets of boundaries used in this study are shown in Figure 9.1. Although they determine two areas of different shape and size they have a large common area that contains the bulk of their population. The principal population statistics are available at a parish level, and these can be aggregated for the sub-region defined in terms of employment exchange areas. But other tabulations do not exist on this fine basis, and we have therefore had to prepare them for a sub-region defined in terms of complete urban and rural districts. When we have needed to make a distinction we have called this area 'the expanded sub-region'. In 1971 it had a population of 416,946, compared with the population of 385,400 in the sub-region defined in terms of employment exchange areas.

The two main sources of data are the Population Censuses and estimates prepared by the Registrar General. The Censuses of 1951 and 1961 had one hundred percent coverage and were fully published some time ago. The 1966 census was based on a 10% sample, and for some purposes, especially when small numbers are involved, is therefore less reliable. We had understood when the study began that much more of the 1971 data would have been published by the time of writing than has in fact become available.* Consequently we have not been able to present a reasonably up to date analysis in the detail we would wish.

There are, of course, many points to be kept in mind in any analysis of Census data, but two are of especial importance in this study. One concerns Cambridge itself, while the other is of more importance in some of the outer areas.

Cambridge has a large population of students, and to some extent of teachers, who live in the city (or close to it) during

* As the years pass by we all appreciate more and more that the decision to use computers implies a decision to introduce uncertainty into schedules. Manual tabulations can always be expedited by employing more hands: but computers resist augmentation.

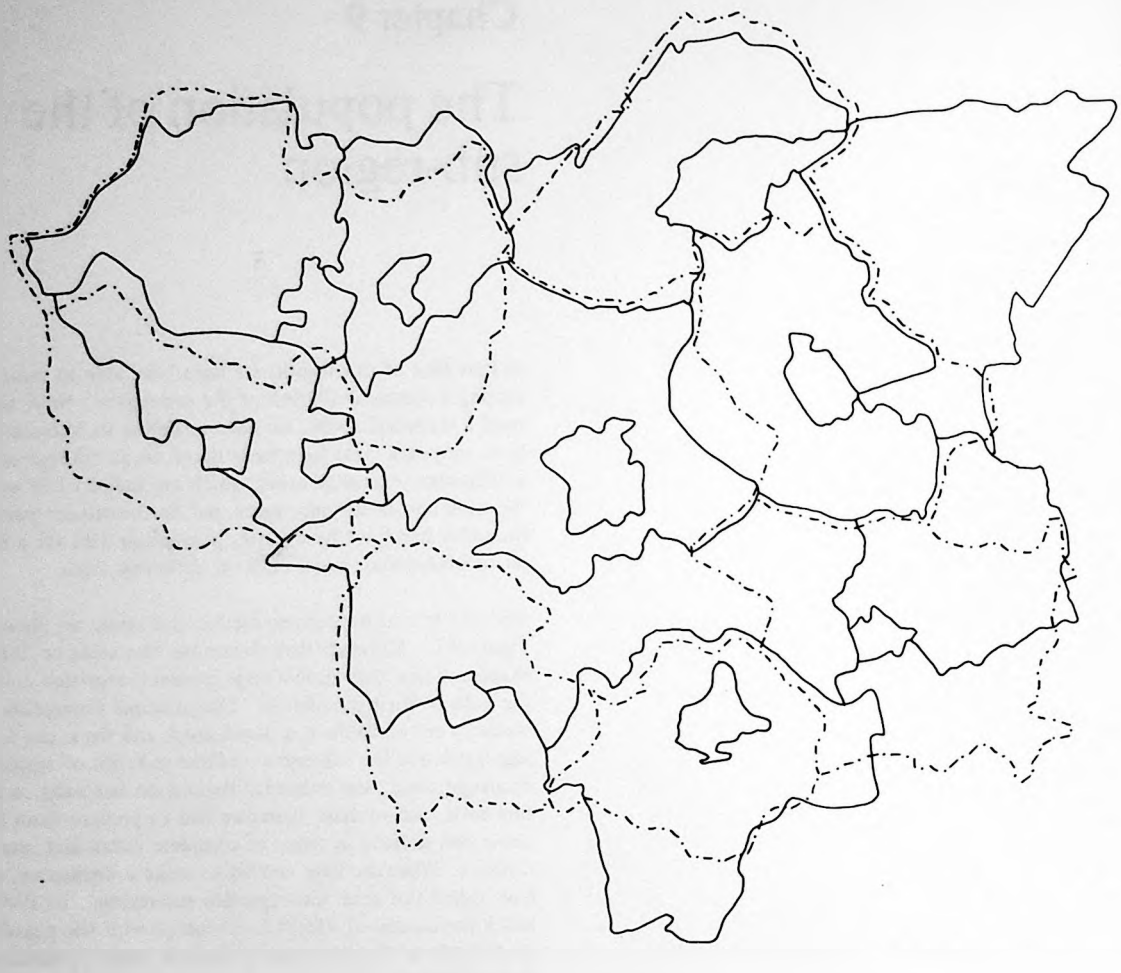


Figure 9.1 Boundary Definitions

Key

———— Administrative boundaries
—·—·— EEA boundaries

term time, but many miles away during vacation. This has led to problems. In 1951 the Census was taken out of term, when the majority of students were absent. Ten years later, it was in term time, when almost all were present. This, alone, could lead to a difference of about 8,000 in the enumerated population. When the sample census of 1966 took place it was term time, but other factors led to a low enumeration. The next census, in 1971, was also in term, but by then there had been a substantial relaxing of rules about residence in college, and so there were almost certainly many more weekend absentees than in earlier years. It is also to be noted that there was some hostility towards the 1971 census, and it would not be surprising if this led to some undetected distortion of returns, especially amongst strongly feeling students.

The other factor that bedevils both the census data and official estimates is the presence of several military bases – British and American – in the sub-region. The census enumerates people housed in hostels, married quarters and barracks, under the heading of 'Defence Establishments', which is a sub-heading of 'Institutions'. However, there are problems. Some military personnel live outside the bases, and they tend to be enumerated along with the rest of the local population. There are also problems about the dependents. The Registrar General can usually obtain a better idea of the size of the problem by using electoral rolls and other means, but difficulties remain. The peculiar age and sex structure that arises when there is a substantial military presence distorts birth, marriage and death rates. There is also a very mobile element in the population, whose composition and size may vary suddenly.

In most cases the population figures used by us are Mid-Year Civilian Population estimates. These exclude armed forces personnel but include other institutional population. Employment exchange area populations are based on census data for parishes, with adjustments for the armed forces and known differences arising out of such factors as the absence or presence of students. In all cases the data relate to 1971 boundaries. A fuller note on these matters appears as an Appendix.

The sub-region is not densely populated. Even now, as before the second world war, it remains essentially an agricultural area, with a ring of market towns and scattered agricultural villages centred on a university town that also has important market functions. In 1951 there was very little manufacturing industry. The population was distributed in very broadly the same ways as now, with a concentration in Cambridge and the market towns: but the growth of the last twenty years has been very uneven. Policy has restricted the growth of Cambridge and encouraged the growth of selected villages. Haverhill, Huntingdon, St. Neots and Mildenhall have expanded very rapidly under the impetus of TDA schemes. The area around Ely and Chatteris has seen a sizeable emigration, for economic reasons, and has had a struggle to maintain the level of its population: but most other towns in the sub-region have expanded through natural increase and considerable immigration. The effects have often overflown into the immediately surrounding rural areas. The urban-rural division of the population is shown in Table 9.1.

Figure 9.2 shows the distribution in 1951 and 1971. We must now look more carefully at some of the factors behind the differences between these two distributions.

The most important factor has undoubtedly been the very large immigration. Between 1951 and 1971 the population of England and Wales grew by about 12%. East Anglia was an area of high immigration, both from areas to its north and west, and from London and the South-East. It grew by over 22% during this time. In the fifties only the Midlands and the South-East grew faster. In the sixties it far exceeded other regions in its rate of growth, as is brought out dramatically in Table 9.2. The south-western corner of it, nearest to London and routes to the Midlands, in other words, the Cambridge sub-region, grew by 33% over the twenty years.

Table 9.3 presents some more detail and shows that in the sixties the sub-region population grew by over 20%, almost four times the rate of national increase.

Some of this growth arises out of schemes based on the Town Development Act, 1952. The purpose of this act was to promote the flow of people and employment out of London into selected towns. This has been achieved through a number of agreements freely entered into by county and district councils providing for co-operation between the local authority and the GLC.

Table 9.1 Distribution of population* between Urban (including MB's) and Rural Districts, 1951–1971

Sub-Region	1951		1961		1971	
	No.	% of total pop.	No.	% of total pop.	No.	% of total pop.
Urban districts	142,534	46.7	157,899	46.3	192,780	46.2
Rural districts	162,875	53.3	183,230	53.7	224,166	53.8
Total population	305,409	100	341,129	100	416,946	100

*Home population adjusted for military personnel

Sources:
Censuses of Population 1951, 1961, 1971
Registrar General's Mid-Year Estimates

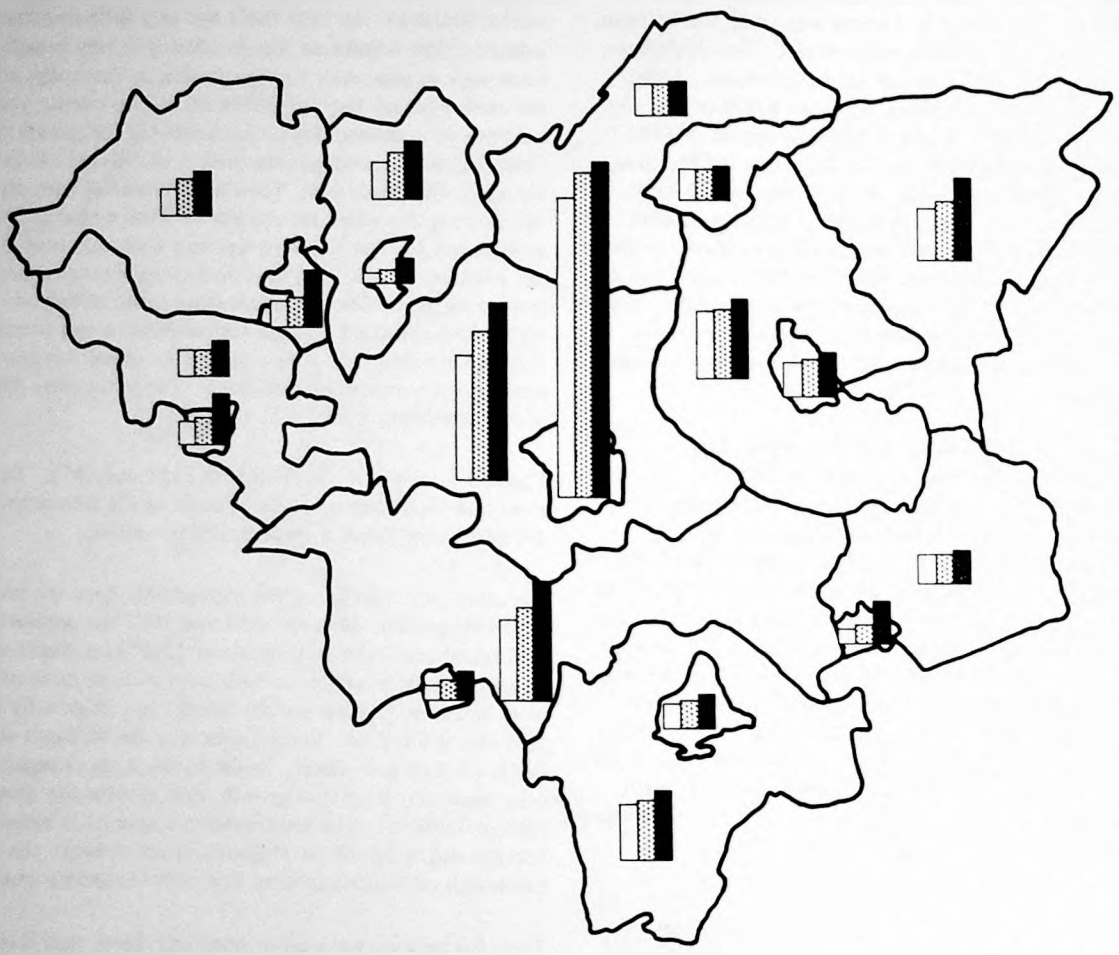


Figure 9.2 Cambridge sub-region population by administrative area 1951-71

Key

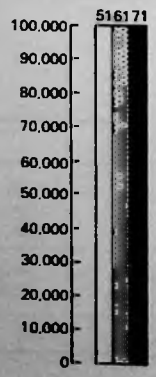


Table 9.2 Annual average percentage population change by region: 1951–61, 1961–71

	Region									
	England and Wales	North	Yorks and Humber	North-west	East Midland	West Midland	East Anglia	South-east	South-west	Wales
1951–61	0.52	0.35	0.24	0.19	0.71	0.73	0.62	0.73	0.55	0.17
1961–71	0.57	0.16	0.37	0.26	0.90	0.73	1.35	0.59	1.06	0.30

Source: Registrar General's Quarterly Review No. 495, Sept. 1972

Table 9.3 Home population changes: 1951–61, 1961–71 (000's)

	Population 1951	% Growth	Population 1961	% Growth	Population 1971
East Anglia	1,387.6	7.3	1,489.2	12.9	1,680.9
Sub. Div.					
N.E.	520.5	3.8	540.2	12.0	604.9
N.W.	260.0	11.2	289.1	7.8	311.7
S.E.	321.8	8.8	350.2	11.5	390.4
S.W.	285.4	8.5	309.7	20.7	373.9
Sub-region	323.6	10.2	356.6	20.7	430.4
England and Wales	43,815.0	5.4	46,196.2	5.7	48,815.0

Sources:
Registrar General's Mid-year Civilian Estimates
Census of Population

The first requirement is that all parties to the agreement should satisfy themselves that on physical, social and economic grounds the expansion is practicable and likely to be successful in attracting both firms and families from London. If agreement in principle is reached on these matters, and the appropriate Government Departments consent, a formal agreement is negotiated.

There are two main types of agreement. In the 'agency' agreement the GLC carries out the design and construction of housing and the layout of sites for industry, acting as the agent of the district council. The other type of agreement is called a 'nomination' agreement and the district council itself does the development.

TDA agreements have been responsible for the very rapid growth of Haverhill, Huntingdon and St. Neots. All of the families who have come to the sub-region in this way have done so voluntarily. Usually they have been the families of employees of the firms moving to the town from London, or local authority tenants, or those on housing waiting lists who have notified the GLC of their willingness to move through the provision of the Industrial Selection Scheme. Most of them have been families with married couples aged between 25 and 40. The Government and the GLC contribute to the costs of housing the tenants nominated by the GLC.

It is instructive to isolate the areas where immigration has been encouraged by TDA schemes. The expanded sub-region has TDA schemes in Mildenhall, St. Neots, Haverhill and Huntingdon. Between them they experienced a total increase in population of 5,000 in the fifties and of about 30,000 in the sixties. If we take account of these figures and subtract them from the total increases for the expanded sub-region we find that in the fifties there is still a growth of about 30,000 to be explained by natural increase and migration, and of about 46,000 in the sixties. Putting it another way, the part of the expanded sub-region not directly affected by TDA schemes grew by 11.2% in the fifties and by 15.4% in the sixties, while the comparable national rates were 5.4% and 5.7% respectively.

Migration unassociated with the TDA schemes has sometimes been called 'voluntary'. It is a badly conceived adjective, since it implies a degree of compulsion in the TDA schemes. To avoid this, and in the hope that its meaning will be clearly understood, we shall instead use the adjective 'normal' to refer to this kind of migration. Very roughly speaking, it seems to have been about as important as natural increase during the fifties, and almost twice as important in the sixties.

There is no doubt that in some cases this normal migration has been indirectly related to TDA schemes. People have sometimes moved from London or elsewhere to live in a rural district close to, but not part of, an expanded town. There has also been a movement associated with the armed forces, but since the number of people stationed in the sub-region has declined substantially it is unlikely that there has been a net positive contribution to immigration: indeed, it is more likely that the effect of the running down of bases has worked in the opposite direction.

Thus we are left with the unassailable fact that TDA and air bases apart, the Cambridge Sub-Region has been one of the fastest growing areas in the country, especially during the sixties. This is a point that is paramount to our story. That

Cambridge itself has grown less rapidly, by 8% in the fifties and by 3% in the sixties is also part of the story, but it does not in any way negate the growth of the sub-region. It has been part of official policy to restrict the size of the City of Cambridge, and this aim has been achieved: but in each decade the rural district surrounding the city has increased its population by 20%, while South Cambridgeshire RD, a little further south, grew by over 18% in the fifties and by 27% in the sixties. In fact, during the twenty years the population of these two rural districts grew by 28,000. The city's population grew by 10,000. Between them, the city and these two rural districts provided a third of the sub-region's population growth. The total growth experienced in the four TDA areas during the same period fell short of this by 4,000.

This very remarkable normal migration settled in most parts of the sub-region, but only in very recent years has it begun to impinge on the north-east. In that more remote area, agricultural decline, unbalanced by new industry, had led to depopulation until, notably after 1966, there began to be signs of people settling in the area as a place of commuter residence, mainly for people with jobs in Cambridge, who found it cheaper to live north of the city than south of it. This, indeed, is but one manifestation of an important set of forces. As we shall later see, many of the people living in the more rapidly growing districts in the south of the sub-region were living to the north of their work, on the side remote from London. Royston, and much of the rural area to its north, owes a good deal of its expansion to the fact that houses in and around that town are cheaper than comparable ones to the south, where so many of its residents work, and to which communications are so good. Much the same is true of the area around Saffron Walden, although there are, as we shall see, important differences. Much further north, the growth of St. Ives is largely due to its accessibility not only to work places in nearby Huntingdon but also to Cambridge and, by means of the A1, places as far south as Bedford, Stevenage and beyond. It must not be forgotten that although the growth of Cambridge's population has been curtailed, its growth as an employment centre has been very marked. In 1951 there were 42,410 people at work within the city. Ten years later the number was 10,000 greater – an increase of almost a quarter. In 1966 the sample census recorded a further growth of about 3,000 jobs – an increase of about 6% in five years. These are figures relating strictly to jobs within the city: just outside it there was further growth. Many of these jobs have been brought about by the growth of population in the sub-region, which has engendered a demand for various central area service employments: but in other cases it has been the existence of a suitable job in an area that is inherently attractive that has brought in the population.

The importance of the south-east, and especially of Greater London, as a source of migrants into East Anglia in the early sixties is clear from Table 9.4, which also indicates two distinctly different demographic groups. There were very many of childbearing age, often accompanied by young children but, on average, having only about one child per couple. In other words, well over half of the migrants seemed likely to produce children either within a few years or – in the case of the younger ones – in perhaps ten to twenty years time. The second group consisted very clearly of the elderly, who had come for retirement.

These are figures that relate to East Anglia as a whole. We do not yet have statistical evidence, but it appears likely that the Cambridge sub-region was biased towards the younger married people, whereas the Norwich and Ipswich areas probably received the larger part of the elderly migration.

Natural increase, affected by migration was of greater significance in the sixties than in the fifties. In the former decade it led to an increase of 4.5% in the nation's population, of 4.8% in East Anglia's population and 5.8% in the population of the sub-region. But while the sixties saw the national increase rise to the slightly higher figure of 5.9% which was virtually the same as the percentage for East Anglia, in the Cambridge Sub-Region natural increase added 8.4% to the population.

The relevance of migration to this higher birthrate is brought out forcibly in Table 9.5, which shows the annual live birth

Table 9.4 Net migration flows to E. Anglia 1961–1966 by age-group, net gain or loss (–), (10's)

	Age of Migrants					
	1–14	15–24	25–44	45–49	60+	All Ages
Northern	38	34	32	24	6	1,34
Yorks and Humber	66	46	1,00	33	59	3,04
North West	50	73	87	17	33	2,60
E. Midlands	54	75	66	38	47	2,80
W. Midlands	-13	12	-12	34	57	78
South East	6,75	1,28	12,40	6,96	10,28	37,67
GLA (1)	4,90	1,02	9,75	4,96	6,58	27,21
OMA (2)	1,81	86	2,09	1,84	3,19	9,79
OSE (3)	4	-60	56	16	51	67
S.W.	-22	1	-9	-15	23	-22
Wales	-6	4	-29	2	-7	-36
England and Wales	8,42	3,73	14,75	8,29	12,46	47,65

Source: Census of Population 1966 Notes: (1) Greater London Area (2) Outer Metropolitan Area (3) Other South East

Table 9.5 Birth rates* for selected areas in the sub-region, 1967–1970

Area	1967		1968		1969		1970		1971	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Cambridge	1,353	13.5	1,318	13.5	1,167	11.6	1,223	12.2	1,215	12.2
Ely UD	138	13.8	120	11.9	120	12.0	120	12.0	122	11.9
Chesterton RD	876	17.3	904	17.5	865	16.6	893	17.1	847	15.7
Ely RD	238	16.1	231	15.5	250	16.6	250	16.6	241	15.7
Newmarket RD	363	16.3	362	16.1	365	16.1	342	15.1	368	18.4
S. Cambs RD	649	18.5	594	16.4	646	17.6	664	17.2	655	17.7
Huntingdon MB	374	25.3	330	21.7	344	22.0	319	20.3	295	17.8
St. Ives MB	110	21.3	145	26.4	115	19.6	155	25.2	135	18.5
St. Neots UD	255	21.4	246	18.9	274	20.0	283	19.3	335	21.9
Hunts RD	262	16.4	291	17.5	314	18.4	266	15.6	309	18.6
St. Ives RD	331	18.6	303	17.2	330	18.4	342	19.1	404	21.1
St. Neots RD	169	18.6	184	20.4	186	19.6	207	21.1	221	20.6
Clare RD	187	18.1	171	16.2	164	15.5	136	12.8	158	16.1
Haverhill RD	293	28.4	270	25.2	305	27.2	286	25.1	294	23.6
Mildenhall RD	508	17.6	495	16.7	610	19.6	553	18.1	580	19.7
Newmarket UD	178	15.0	212	17.5	203	16.7	191	15.6	220	16.9
Safr. Walden MB	164	17.4	146	14.7	173	17.2	307	15.1	350	16.6
Safr. Walden RD	342	17.8	360	18.2	343	17.3	307	15.1	350	16.6
Royston UD	117	16.5			142	18.8	159	19.2	180	21.3
Sub-region										17.5
Eng. and Wales		17.5		17.1		16.6		16.2		16.2

* Live birth rate per 1,000 population (unadjusted)

Source: Registrar General's Estimates

rates, unadjusted for age differences of the population, for the principal areas in the sub-region. The expanding towns almost always showed rates well in excess of the national rates, and this was true of St. Ives and some of the rural areas, as well as of the TDA towns. Only Cambridge and Ely consistently showed live birth rates below the average. In the former city the picture is obscured by the large number of unmarried students; and there may well be other effects stemming from a tendency for professional people to marry later, and to have smaller families than manual workers, and from an emigration of young married couples to the more easily available housing of expanding rural areas. In Ely the out-migration has dominated the picture, and it has removed people of similar childbearing propensities to those possessed by people who have arrived in the expanding towns.

Age distributions of the population for selected areas including the market towns are shown in Figure 9.3. They are important not only as an indication of recent events but also as pointers to the future. One notes, for example, the very high number of children aged under 14, and especially under 10, in Huntingdon in 1971 – which would suggest that around 1981 the number of marriages should be rising, and that this rise should continue for several years. A similar phenomenon is to be noted in St. Neots, and in Haverhill. It is also observable in Royston, South Cambridgeshire Rural District, St. Ives Rural District and, to some extent, in Saffron Walden Rural District. In all of these areas we can expect birth rates to be higher in the eighties than it would otherwise be. Detailed analysis of age structures is complicated by educational and military establishments, as is well shown in Figure 9.3. Adjustments can be made, but in an area where migration is so important the results of any projections are not very meaningful. Whatever we may say about natural increase, we have to caution that migration seems likely to exceed it, and what is needed is sensitive monitoring and a readiness to react within a flexible but thought-out policy rather than detailed forecasts of a kind that are almost certain to be very wrong. For what they are worth, some predictions of natural increase are included in Appendix 2.

Table 9.6 indicates the estimated distribution of population between the employment exchange areas. It has to be interpreted in light of what has just been said about age-structure, and a more detailed knowledge of local employment patterns than is appropriate in this chapter, but even here we may note that there are two employment exchange areas that in the fifties saw population grow very much faster than employment (contrary to the sub-regional and national pattern), yet in the sixties had the reverse experience of employment growing faster than population (and once again contrary to experience elsewhere.) This is a point to which we shall return.

We must now make some estimate of likely future changes in the sub-region's population. In September 1972 the Registrar General's Quarterly Return published certain assumed rates of net migration into various parts of the country. They are shown in Table 9.7.

Table 9.6 Total civilian population, 1951–71

EEA	Population			% growth		
	1951	1961	1971	51–61	61–71	51–71
Cambridge	134,076	149,930	166,316	11.8	10.9	24.1
Newmarket	29,080	31,090	35,559	6.9	14.4	22.3
Haverhill	17,670	18,964	27,904	7.3	47.1	57.9
Saffron Walden	14,459	15,537	18,262	7.5	17.5	26.3
Royston	16,870	20,079	25,275	19.0	25.9	49.8
St. Neots	17,505	18,313	27,265	4.6	48.9	55.8
Huntingdon	32,979	39,468	59,423	19.7	50.6	80.2
Ely	24,177	23,892	25,349	−1.2	6.1	4.8
Sub-region	286,816	317,273	385,353	10.6	21.5	34.4

Sources:
Registrar General's Mid-Year Civilian Estimates
Census of Population 1961
Local Population Estimates

Table 9.7 Net migration estimates and future 1971 based assumptions (000's per annum)

Area	Estimates mid-year to mid-year			Assumptions mid-year to mid-year			
	51–61	61–66	66–71	71–76	76–81	81–86	86–91
England and Wales	+30	+36	−22	−18	−25	−30	−30
East Anglia	+3	+12		+15	+13	+7	+7
South East	+44	−4		−25	−26	−22	−22
Greater London Area	−61	−98		−100	−100	−90	−90
Outer Metropolitan Area	+78	+44		+30	+29	+28	+28
Outer South-East	+27	+51		+45	+45	+40	+40

Source: Registrar General's Quarterly Returns, Sept. 1972

Table 9.8 Home population projections – 1971 based

Area	1971 Population 000's	Change 1971–76		Change 1971–81		Change 1971–86		Change 1971–91	
		000's	%	000's	%	000's	%	000's	%
England and Wales	48,815	946	1.9	1,940	4.0	2,976	6.1	4,148	8.5
E. Anglia	1,681	112	6.7	217	12.1	293	17.4	374	22.3
South E.	17,259	298	1.7	598	3.5	924	5.4	1,285	7.4
GLA (1)	7,418	−298	−4.0	−615	−8.3	−931	−12.6	−1,289	−17.4
OMA (1)	5,344	327	6.1	664	12.4	1,024	19.2	1,424	26.6
OSE (1)	4,497	269	6.0	549	12.2	832	18.5	1,150	25.6

Source: Registrar General's Quarterly Returns, Sept. 1972 Note: (1) See notes to Table 9.4

On these assumptions we can expect East Anglia's population to grow through migration alone by about 140,000 in the seventies and by about 70,000 in the eighties. They are, of course, assumptions that are based on past trends and certain aspects of present policies. The projected net increase in total home population is expected to amount to about 217,000 in the seventies and a further 157,000 in the eighties, representing growth of almost a quarter over the twenty years. The figures are summarised in Table 9.8.

These are projections relating to East Anglia. Our own main concern is with the south-western sub-division, which is contiguous to the Outer Metropolitan Area. Table 9.9 shows that between 1951 and 1971 this sub-division expanded its population by 88,000 people, representing a percentage growth of 31%, compared with the regional growth in East Anglia of 293,000, which comes to only 21%. The other three sub-divisions of East Anglia grew by 16%, 20% and 12% as can be seen from the Table. This is despite the constraint imposed on the growth of the town at the centre of the south western sub-division.

As we have seen, some of this growth is because of TDA schemes. However, although their planned contribution to growth seemed until recently likely to decline, Haverhill and St. Neots have recently indicated their wish to exceed the current targets. In particular St. Neots has lately increased its concentration on providing privately built houses, often accommodating migrants from North Hertfordshire and commuters to the South.

The largest expected migration into East Anglia is to the Peterborough area, which expects about 70,000 additional migrants by 1985. This comes to about 4,500 per annum.

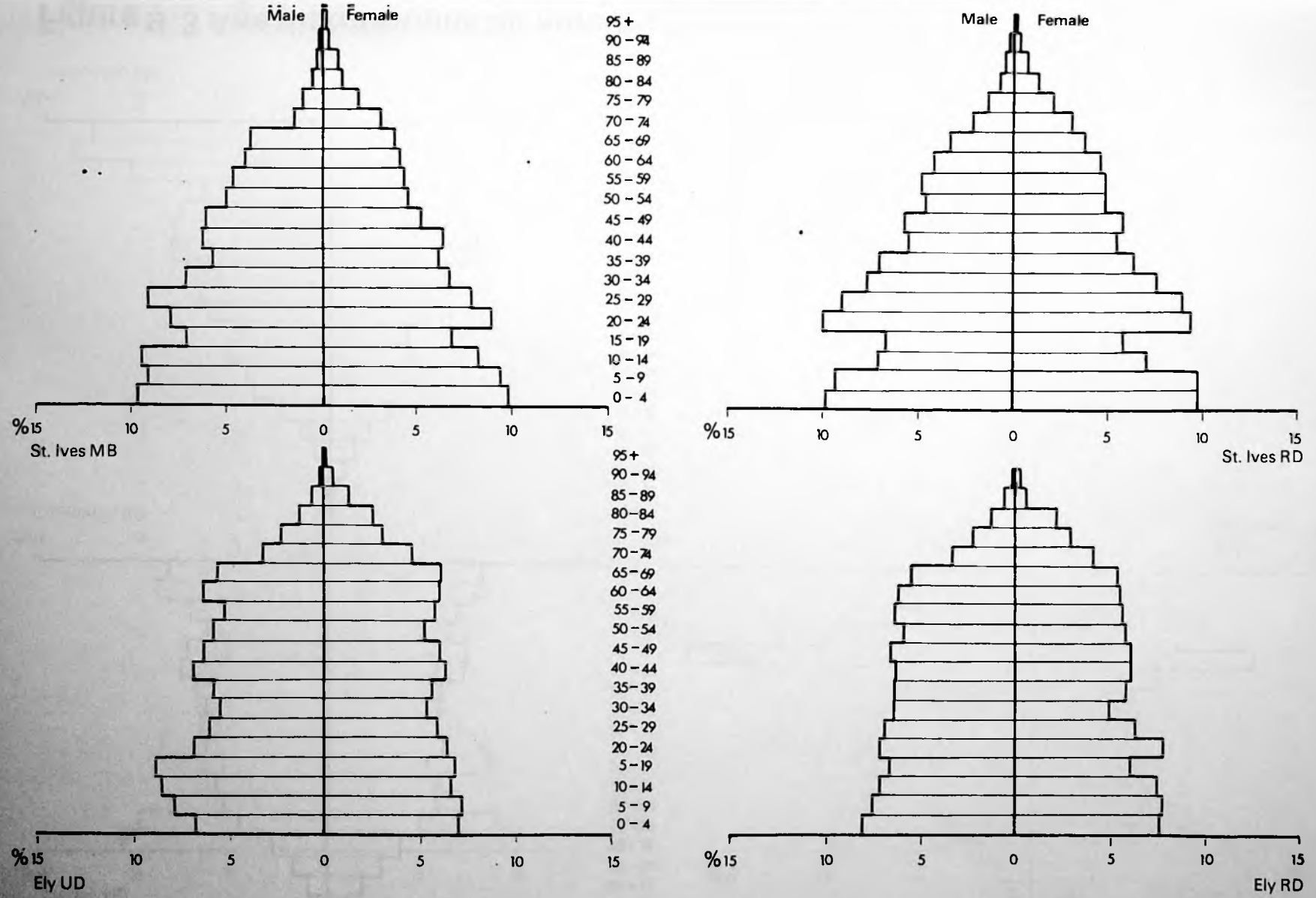


Figure 9.3 Age distributions by administrative area 1971

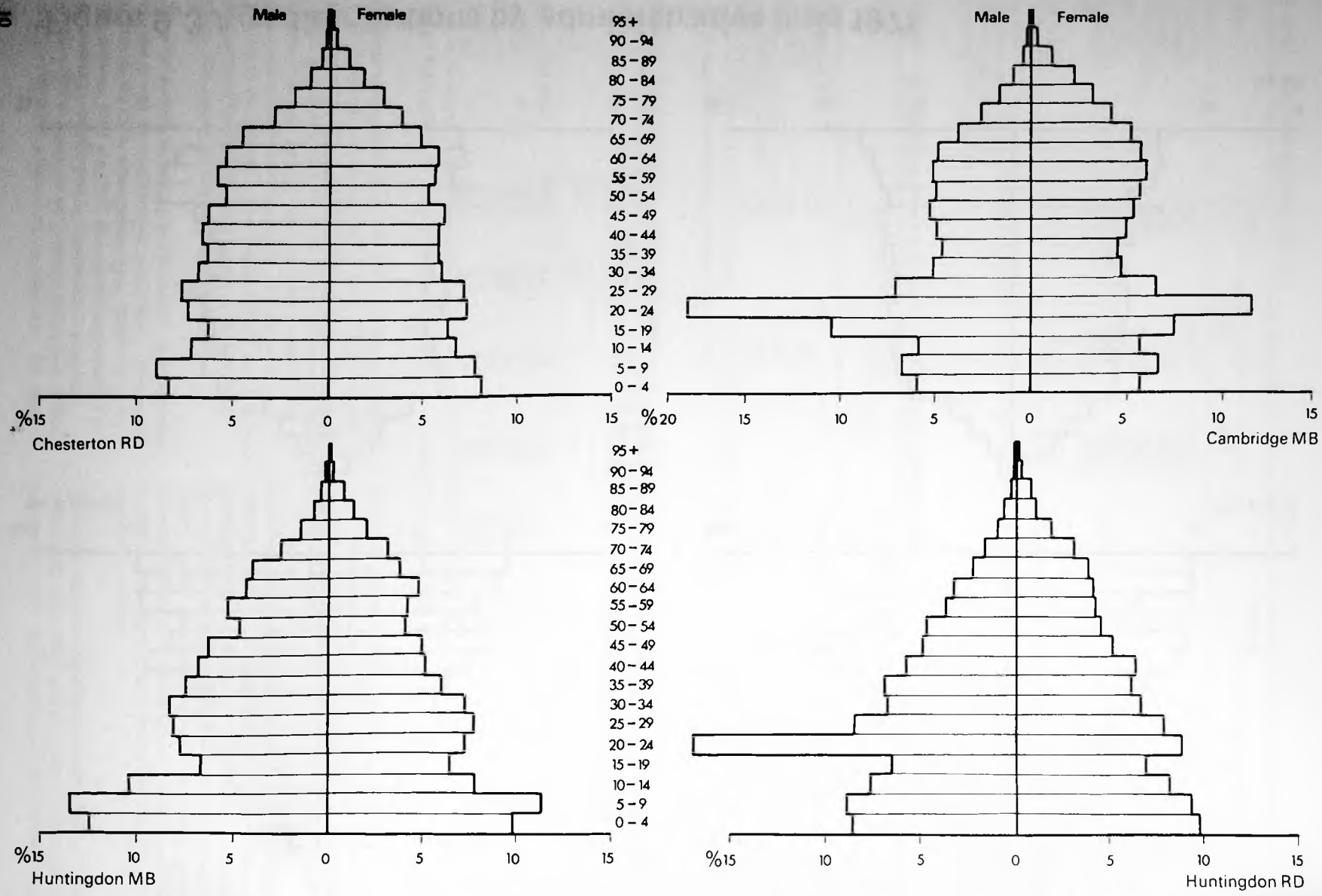
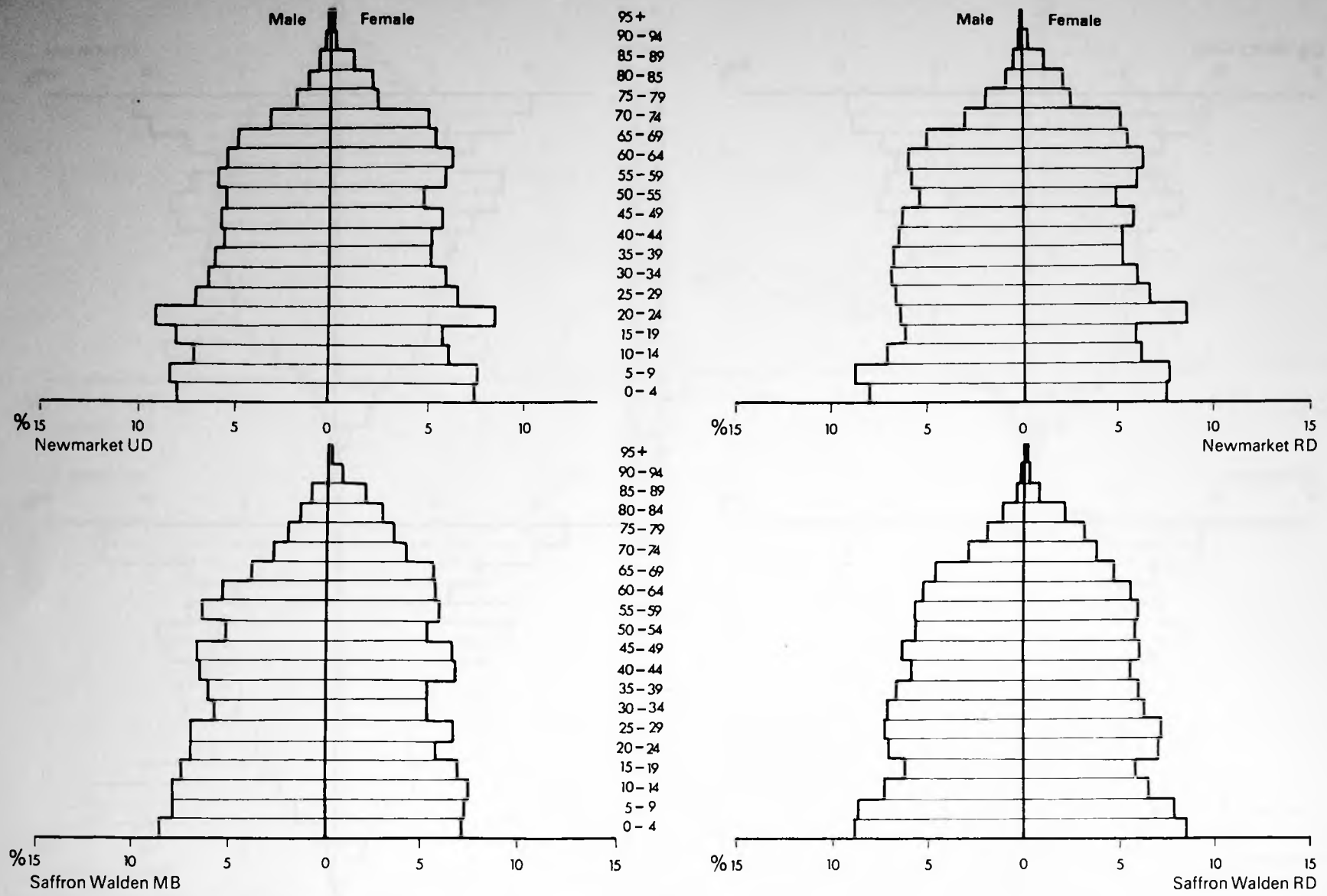


Figure 9.3 Age distributions by administrative area 1971


Male
Female
95+
90 – 94
85 – 89
80 – 84
75 – 79
70 – 74
65 – 69
60 – 64
55 – 59
50 – 54
45 – 49
40 – 44
35 – 39
30 – 34
25 – 29
20 – 24
15 – 19
10 – 14
5 – 9
0 – 4
% 15 10 5 0 5 10 15
Newmarket UD
Male
Female
% 15 10 5 0 5 10 15
Newmarket RD
95+
90 – 94
85 – 89
80 – 84
75 – 79
70 – 74
65 – 69
60 – 64
55 – 59
50 – 54
45 – 49
40 – 44
35 – 39
30 – 34
25 – 29
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Saffron Walden RD

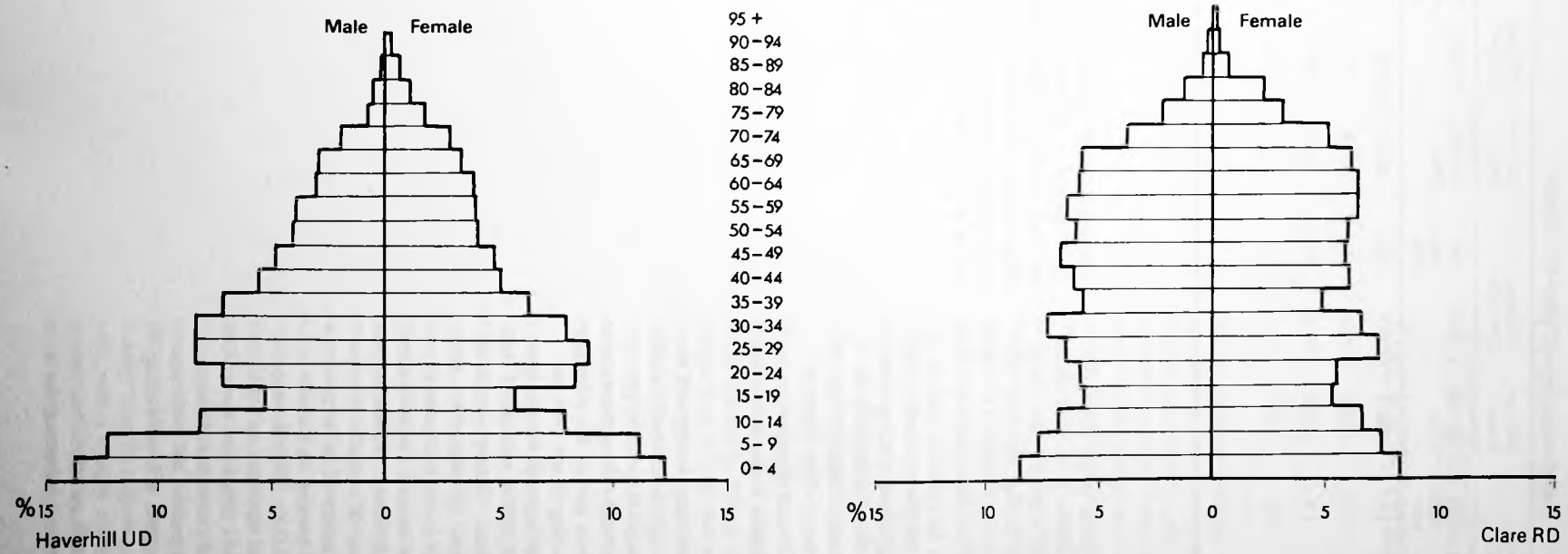


Figure 9.3 Age distributions by administrative area 1971 (continued)

Table 9.9 Population change/migration – E. Anglia and sub-division, 1951–1971 (000's)

Sub-division of East Anglia	Mid-year Home Population Estimate 1951	Changes 1951–61		Mid-year Home Population Estimate 1961	Changes 1961–66		Mid-year Home Population Estimate 1966	Changes 1966–71		Mid-year Home Population Estimate 1971	% growth 1951–1971
		Total	Net migration		Total	Net migration		Total	Net migration		
N.E. (Norwich)	520.5	19.7	3.9	540.2	25.7	19.5	565.9	38.9	30.8	604.9	16
N.W. (Peterboro')	260.0	29.1	5.2	289.1	12.8	5.2	301.9	9.7	0.0	311.6	20
S.E. (Ipswich)	321.8	28.4	7.9	350.2	21.5	12.8	371.7	18.7	9.0	390.4	12
S.W. (Cambridge)	285.4	24.3	10.0	309.1	32.5	21.9	342.2	31.8	18.8	373.9	31
East Anglia	1,387.6	101.6	27.1	1,489.2	92.5	59.4	1,581.7	99.2	58.7	1,680.9	21

Source: Censuses of Population

The requirements of the expanded towns would necessitate an immigration of about 1,500 per annum if they continued their present programmes through the eighties. This would indicate a planned migration, mainly through the GLC overspill agreements, of around 30,000 persons between 1971 and 1991. Thus Peterborough New Town and the expanded towns in the south-western sub-division can be expected perhaps to receive about 55,000 immigrants in the seventies and 45,000 in the eighties. The other expanding towns of Kings Lynn, Thetford, Bury St. Edmunds and Sudbury could well add a further 15,000 in each decade. If these estimates, crude as they are, are to be reconciled with those of the Registrar General, there needs to be some additional migration of about 7,000–8,000 per annum into East Anglia in the seventies, but little more in the eighties.

The Cambridge Sub-Region coincides fairly closely with the south-western sub-division of East Anglia but intrudes slightly into the Outer Metropolitan Area, which is predicted to grow so rapidly. With improved road and rail communication to London and elsewhere, the southern part of the sub-region could well grow very rapidly. According to our own predictions, we can expect the sub-region's population to grow between 1971 and 1991 by about 38,000 as a result of the natural increase of the 1971 population. This represents an increase of about 10% over this period. Between 1951 and 1971 the south-western sub-division's population grew by about 38,000 as the result of natural increase (including the natural increase of immigrants) and by about 51,000 through migration (excluding natural increase). If a similar balance of natural increase and migration is preserved in the seventies and eighties we could expect a total increase in the sub-division's population of well over 90,000. This, however, takes no account of any changes that may tend to make the area more favourable towards migrants than it has been. One of these must be the existing level of commitments, mentioned in Part One, which even now permits the settlement of over 120,000 people in the sub-region, without waiting for the eighties.

The Registrar General's predictions to some extent rest on policy, but they are not, and cannot be, a substitute for a planning strategy. Nor can projections of past trends determined largely by the conflict or synthesis of past policies and past pressures. What we have to do is to keep them in mind as a yardstick against which to assess our own recommendations. If they turn out to be very different, that may not be a bad thing.

Chapter 10

The agricultural background

We have already said that the sub-region is still essentially an agricultural area, with a ring of market towns and scattered villages centred on a university town that also has important market functions. Less important than it was as a source of employment, agriculture is still a major industry. For the people of many of the smaller towns and villages, it is the main industry. But something that is even more important is the way in which it dominates the social, as well as the economic, pattern of so much of the sub-region and the impact that it makes on its appearance. In all of these respects, changes are taking place.

Agriculture is an industry whose possibilities and fortunes still depend very much upon the weather, the terrain and the soil. In all three, the sub-region is favourably endowed, although there are important differences within it.

The weather is the subject of a brief note in Appendix 3. What it all amounts to is that basically the sub-region is warm and dry by British standards, but subject to slightly greater than average seasonal variation of temperature, and much less than average seasonal change in its rainfall. It has a climate that makes it more suited to the production of field crops than to the grazing of livestock, but exceptions occur, notably on poorly drained heavy soil and in river valleys.

In the west of the sub-region the main drainage is into the River Ouse. The Valley of this river consists basically of Oxford clay, with extensive gravel terraces succeeded higher up the valley sides by Gault and Till. There are substantial river terrace deposits of brown earths around St. Neots, Huntingdon and St. Ives. The valley is broad and shallow, as may be inferred from Figure 10.1. To its east and south is the Western Plateau, lying to the west of Cambridge and on the disappearing boundary between Huntingdonshire and Cambridgeshire. It is unique in the sub-region in that the solid rocks beneath this raised area include all the strata of the sub-region's geology from the Jurassic Oxford Clay to the Cretaceous Chalk. It is, however, the large Till deposit that provides the main relief: only twice does the rock emerge from this thick deposit that in places is as much as 200 feet deep. The plateau as a whole slopes gently and radially from its highest point (270 feet OD) in the south west, with a sharper break of slope to lower ground occurring around 160–200 feet OD. These gentle gradients and heavy soils have presented problems of drainage.

Figure 10.1 The relief of the sub-region

Key

Land below mean sea level

Height in feet above sea level

0-100

100-200

200-400

400-600

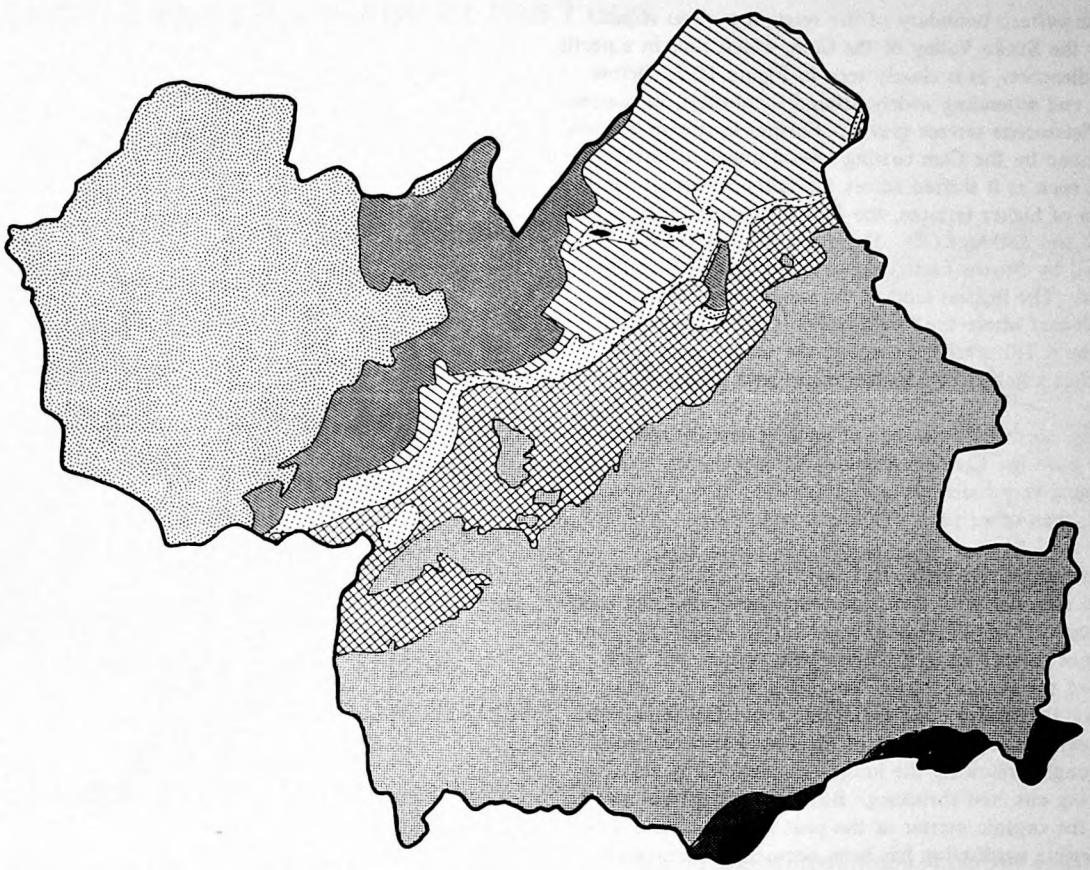


Figure 10.2 Solid geology of the sub-region

Key

London clay	Eocene
Oldhaven, Thanet and other beds	
Chalk (inc. red chalk)	Cretaceous
Upper greensand and gault	
Lower greensand and speeton clay	
Portland beds	Upper Jurassic
Kimmeridge clay	
Corallion	
Oxford clay with Kellaways beds	

The south-eastern boundary of the western plateau is provided by the Strike Valley of the Cam, which runs in a north-easterly direction, as is clearly seen in Figure 10.2. Below Harston, and extending widely around Cambridge, lie a series of late Pleistocene terrace gravels. Further upstream is a low plain formed by the Cam cutting several unpaired terraces in the solid rock as it shifted across the valley. Further south is an area of higher terraces, the four main ones being at 330, 230, 180 and 130 feet OD. There is a gentle landscape dominated by Brown Earth, but peat and other soil variations are found. The highest land in the sub-region is in the south and south-east where the Chalk Uplands, almost completely covered by a Till overlie, emerge in the main escarpment that reaches a height of 550 feet south-west of Royston.

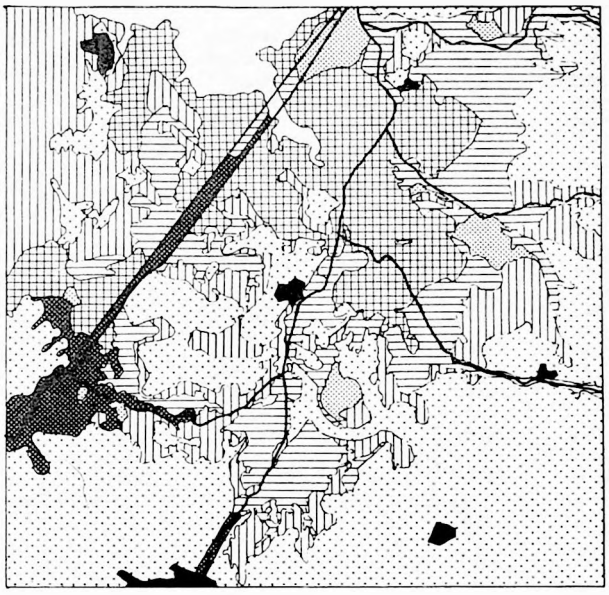
It is in the north that the area of greatest interest lies, for there we have the Fens possessed of the peculiarity that they are changing very much more rapidly, and perhaps more seriously, than other parts of the sub-region.

The Fens form a very important agricultural area. A few islands of clay rise out of the peat, and they have been used for the location of villages and small towns, and in the construction of roads. Once they were real islands, but the draining of the Fens has done something to reduce their insularity. It has also done something else. The thick rich layer of peat found over most of the Fens has been slowly disappearing. Following the initial drainage, the peats have been drying out, and shrinking. But the drainage has also exposed the organic matter of the peat to the air, and slowly an irreversible oxidisation has been occurring. Natural regeneration is impossible, and the peat layer has become progressively thinner. In places it has disappeared. Records kept for one point just outside the sub-region indicate a shrinkage of 13 feet since 1848. At present the rate is about half an inch a year, due now mainly to oxidisation. It is estimated that in some places the life expectancy of the peat is less than 20 years. In Figure 10.3 we can see the effect upon this area of a further wastage of up to 24 inches. Almost all of the peat soils in the Sub-Region could well disappear within the next forty or fifty years.

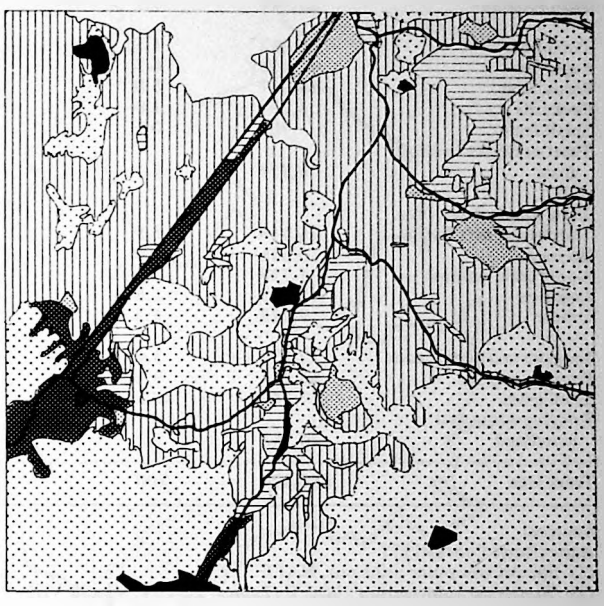
The soil below the peat is mainly clay and sand. It is less easy to work, and less fertile. One useful process is to mix the peat and the sub-soil. This produces better all-round farm land, and prolongs the useful life of the peat by up to a hundred years, but if it is to be worthwhile there needs to be enough peat in the first instance. A thickness of between 18 and 30 inches is considered to be optimal. In some areas shrinkage has already reduced the thickness to less than this. If the process is to be used, it needs to be used quickly.

There seem to be four main obstacles to the wider use of this technique. It is not simple, but it is costly. In 1971 it was costing £21 per acre. Even the most progressive farmers want to have the value of the process proved to them; and others prefer short term profits to longer term prospects. Experiments at Mepal experimental farm suggest that increased returns do in fact outstrip the costs and make it worthwhile. Other benefits arising from mixing peat and

Figure 10.3 The shrinkage of the Fens



10.3(a) 1963 distribution of fenland soils



10.3(b) Probable distribution of fenland soils after further wastage of up to 24 inches of peat.

Key and scale

- Upland soils
- Lake bed soils
- Groundwater gley soils
- Brown warp soils
- Basin peat soils
- Basin peat soils with peaty and humose gley soils
- Peaty and humose gley soils (organic plough layer over mineral subsoil)

1 2 4 6

Scale (miles)

Table 10.1 Broad crop analysis of Sub-Region, Eastern Region, England and Wales, 1971

Crop	Sub-Region[1]		Eastern Region[2]		England and Wales[2]	
	Acreage	%	Acreage	%	Acreage	%
Wheat	181,181	27.4	887,938	22.4	2,618,675	9.6
Barley	203,801	30.9	1,199,939	30.3	4,739,737	17.4
Other cereals	15,875	2.4	104,238	2.6	722,632	2.6
Early potatoes	2,498	0.4	18,584	0.5	67,241	0.2
Main potatoes	25,744	3.9	148,437	3.8	424,730	1.6
Total potatoes	28,242	4.3	167,021	4.2	491,971	1.8
Sugar beet	41,651	6.3	288,909	7.3	459,309	1.7
Stock feed	33,007	5.0	49,602	1.2	510,435	1.9
Orchards	6,277	1.0	32,006	0.8	146,854	0.5
Small fruit	702	0.1	13,114	0.3	32,569	0.1
Total orchards and soft fruit	6,979	1.1	45,120	1.1	179,423	0.7
Total horticulture (exc. orchards, soft fruit)	36,314	5.5	238,509	6.0	473,983	1.7
Brassicas	10,626	1.6	47,685	1.2	115,923	0.4
Roots (exc. onions)	5,739	0.9	33,791	0.8	56,078	0.2
Legumes	12,085	1.8	115,291	2.9	211,406	0.8
Others	7,718	1.2	41,742	1.0	90,576	0.3
Lucerne and temp. grass	22,222	3.4	201,155	5.1	3,584,834	13.1
Permanent grass	65,224	9.9	489,167	12.4	9,798,328	35.9
Total grass	87,446	13.3	690,322	17.4	13,383,162	49.0
Rough grazing and woodland	10,343	1.6	113,826	2.9	3,373,962	12.4
Total area	660,324	100	3,957,770	100	27,320,362	100

Sources:
Agricultural Census 1971
(1) Special computer print out, MAFF
(2) 'Statistical Information', MAFF (Tables: I, IV, V, VI and VII)

the sub-soil include a reduction in wind erosion, the facilitating of root growth, the conservation of organic matter, and an improvement in herbicide efficiency.

A second obstacle is that mixing on a large scale is likely to lead to drainage problems that may be expensive to rectify. Another difficulty is a shortage of suitable machinery, but this should not be insuperable. A much more fundamental problem arises out of the tenancy structure. A large number of small rented farms does not provide the best start for an organised programme of mixing. Yet the prospects have to be faced. With mixing the pattern of farming can continue more or less as now but with some slight move towards intensive vegetables such as celery, leeks and red beet. Without it, wastage is likely to continue, and as the peat disappears so the difficulties of farming will grow. It could well be in the national interest for an effective form of financial inducement to be made available for the quick implementation of an overall programme of mixing. This is a matter that requires urgent consideration.

All in all, the sub-region has an unusually high proportion of good quality agricultural land. Grades 1 and 2 in the official classification of land account for over two-thirds of the total. The favourable climate combines with the fertile land to produce an area which is eminently suitable for crop-growing, and the gentle relief allows easy cultivation. The soil type is important in determining more specifically the best type of crop; and this has led to the identification of six main agricultural sub-divisions, shown in Figure 10.4. We refer to these below, but we must keep in mind that in any area there may be farms that are atypical of others. Agricultural sub-divisions will sometimes be referred to as ASD's. Where practicable we also give data for the areas on which we have based our main analysis. These are derived from employment exchange areas, as will be described in Chapter 11, but are not always identical to them. Despite this, we refer to them, not quite correctly, as employment exchange areas, abbreviated to EEA's.

Except for hops and climbing runner beans intended for processing, every crop listed in the official Agricultural Returns is grown in the sub-region. Table 10.1 presents a summary of the data, with many individual crops aggregated into groups. Cereals take up almost two-thirds of the total crop acreage. About a fifth of the acreage is devoted to other crops – mainly cash roots – with grasses and woodlands accounting for 15%. Potatoes and sugar beet are the main roots, with brassicas and legumes as the main families of vegetables. The sub-region contains 2.4% of the national

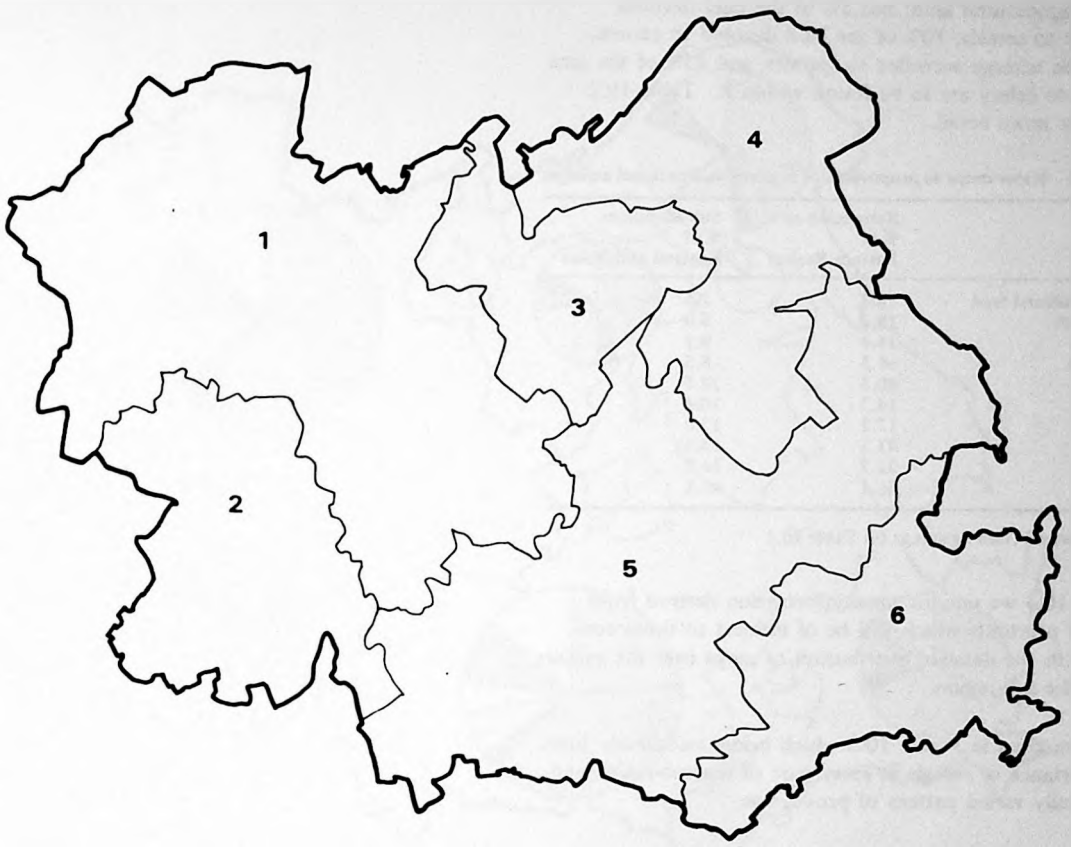


Figure 10.4 Agricultural divisions of the sub-region

Key

1 Arable/livestock
2 Arable/vegetable
3 Arable/fruit
4 Intensive arable
5 Cereals/cash roots
6 General arable

stock of agricultural land: but 5% of the land devoted nationally to cereals, 10% of the land devoted to carrots, 20% of the acreage accorded to sprouts, and 45% of the area allocated to celery are to be found within it. Table 10.2 gives some more detail.

Table 10.2 Major crops as proportion of regional and national acreages

Item	Sub-region as % of Eastern Region	Sub-Region as % of England and Wales
Total agricultural land	16.7	2.4
Total cereals	18.3	5.0
Sugar beet	14.4	9.1
Stock feed	66.5	6.5
Sprouts	40.3	20.5
Carrots	14.3	10.4
Parsnips	17.2	13.0
Beetroot	41.5	13.5
Onions	22.7	16.1
Celery	61.4	45.1

Source: Derived from figures as for Table 10.1

In Table 10.3 we present some information derived from computer printouts which will be of interest to those concerned with the detailed distribution of crops over the various parts of the sub-region.

It is summarised in Figure 10.5 which brings out clearly both the importance of cereals in every part of the sub-region and the generally varied pattern of production.

Agricultural produce has to be marketed. In this country there is a considerable degree of control of marketing as part of the policy that has provided subsidies. It provides for the existence and operation of various marketing boards who purchase from farmers and regulate supply. There are also other authorities, such as the British Sugar Corporation and the Fatstock Marketing Corporation who influence supply and price. At a more local level there are cooperatives. The most important of these in the sub-region is Eastern Counties Farmers, which involves about 30% of the farms in the sub-region.

The sub-region has a surplus of grain, but we know little about its disposal. There are about 40 concerns in the sub-region who handle grain as merchants or processors, but our industrial linkages survey shows that they receive a considerable part of their supplies from outside the sub-region. There seems to be a substantial cross-movement. The direction of exports is not constant, since it depends on harvests in other parts of the country. Exports to abroad use the ports of London and the east coast ports of Kings Lynn, Yarmouth, Lowestoft and Felixstowe.

It is pretty certain that the whole of the sugar beet output of the sub-region goes to the British Sugar Corporation factory at Queen Adelaide, near Ely. The harvest lasts only a few weeks, but the beet is stored on the farms with despatches to the factory over a period of four months. Even so, at the peak of this period there are up to 500 lorries a day converging onto this one factory, which derives some of its

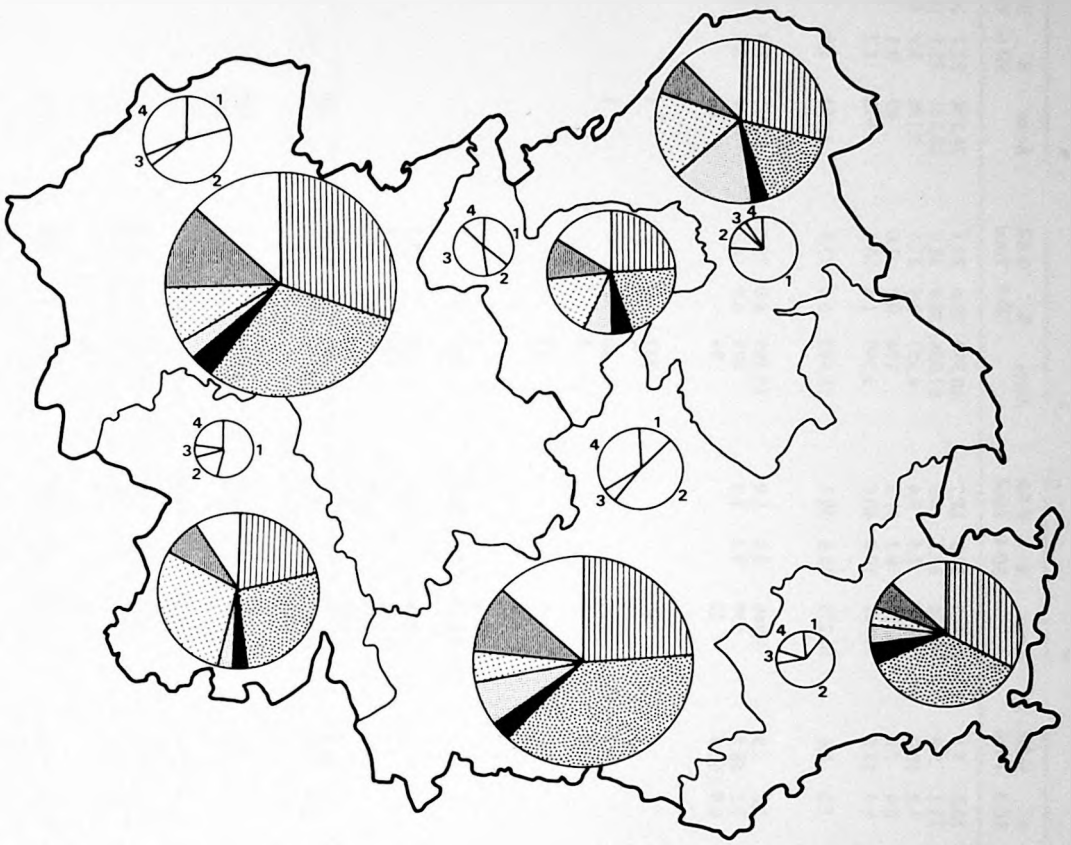


Figure 10.5 The pattern of agricultural production

Key

- Wheat
- Barley
- Other cereals
- Sugar beet
- Vegetables and horticulture
- Permanent grass
- Other

1 Potatoes
2 Stock feedstuffs
3 Orchards and small fruit
4 Temporary grass

Table 10.3 Major crop acreages in the six agricultural sub-divisions of the Sub-Region, 1971

	1			2			3			4			5			6		
	Acres	% SD 1	% SR Total	Acres	% SD2	% SR Total	Acres	% SD 3	% SR Total	Acres	% SD 4	% SR Total	Acres	% SD 5	% SR Total	Acres	% SD 6	% SR Total
Wheat	54,711	30.2	30.2	18,261	23.6	10.1	13,265	26.6	7.3	28,445	29.0	15.7	40,390	23.4	22.3	26,108	32.2	14.4
Barley	56,155	31.1	27.6	23,562	30.4	11.6	11,530	23.1	5.6	16,924	17.2	8.3	67,006	38.8	32.9	28,621	35.3	14.0
Other Cereals	4,332	2.4	27.3	865	1.1	5.4	1,595	3.2	10.0	1,486	1.5	9.4	4,397	2.5	27.7	3,195	3.9	20.1
Early potatoes	484	0.3	19.4	1,318	1.7	52.8	191	0.4	7.6	281	0.3	11.2	174	0.1	7.0	49	0.1	2.0
Main potatoes	4,753	2.6	18.5	3,612	4.7	14.0	3,334	6.7	13.0	10,446	10.4	40.6	2,599	1.5	10.1	998	1.2	3.9
Sugar beet	4,675	2.6	11.2	2,519	3.3	6.0	3,588	7.2	8.6	16,275	16.6	39.1	11,443	6.6	27.5	3,150	3.9	7.6
Beans, roots and other crops for stock-feeding	11,206	6.2	34.0	1,664	2.2	5.0	1,275	2.6	3.9	1,946	2.0	5.9	10,385	6.0	31.5	6,517	8.0	19.7
Orchards	815	0.4	13.0	490	0.6	7.8	3,549	7.1	56.5	159	0.2	2.5	889	0.5	14.2	364	0.4	5.8
Small fruit	111	0.1	15.8	17			425	0.9	60.5	22			94			24		
Vegetables:																		
Sprouts	1,421		16.4	6,852	8.8	79.1	48			10			333			2		
Spring cabbage	5		4.1	107		87.7	4			1			3					
Cabbage	73		5.2	1,014	1.3	72.8	221		15.9	13			69			1		
Savoys				29		58.0	16		32.0	1			2					
Cauliflower	40		23.1	83		48.0	20			7			12					
Winter cauliflower, sprouting broccoli and kale	21		9.1	184		80.0	10			8			5					
Carrots	359		10.0	21			308			2,608	2.6	72.4	309					
Parsnips	6		6.7	332		39.7	34			264		31.6	148		17.7			
Turnips and Swedes	31		19.4	18			4			2			104		65.0			
Beetroot	4		0.4	552		48.3	48			413		36.2	23					
Onions	97		3.8	281			226			1,905		74.7	37					
Broadbeans	66		17.0	82		21.1	99		25.5	4			115		29.6	20		
Runnerbeans	34		15.0	349		171.6	13			3			12					
French beans	567		42.7	270			247			2			241					
Peas	2,494		35.9	604			405			1,552		22.3	1,109			782		
Green peas	1,161		38.6	364			332			3			671		22.3	485		
Celery	40		2.1	32			128			1,710		88.7	7					
Lettuce	60		6.9	621		71.0	142		16.2	20			30					
Watercress				3		60.0							2		40.0			
Other veg. and mixed areas	199		17.0	662		56.6	63			176			64			4		
Total veg.	6,728	3.7	19.2	12,460	16.1	35.6	2,368	4.8	6.8	8,702	8.9	24.9	3,296	1.9	9.4	1,294	1.6	3.7
Total bulbs and flowers	25		2.5	351		34.9	332		33.0	133			151			13		
Total areas under glass	48		24.5	73		37.2	16			3			52		26.5	2		

	1			2			3			4			5			6		
	Acres	% SD 1	% SR Total	Acres	% SD 2	% SR Total	Acres	% SD 3	% SR Total	Acres	% SD 4	% SR Total	Acres	% SD 5	% SR Total	Acres	% SD 6	% SR Total
Total horticultural	7,809	4.3	18.0	13,431	17.3	31.0	6,674	13.4	15.4	9,147	9.3	21.1	4,517	2.6	10.4	1,712	2.1	4.0
Lucerne and temp. grass	7,763	4.3	34.9	2,027	2.6	9.1	1,170	2.3	5.3	1,305	1.3	5.9	7,571	4.4	34.1	2,383	2.9	10.7
Permanent grass	22,933	12.6	35.2	6,998	9.0	10.7	5,394	10.8	8.3	8,030	8.2	12.3	16,915	9.8	24.8	4,953	6.1	7.6
Total crops and grass	177,521	98.0	27.5	75,612	97.7	11.7	48,732	97.8	7.6	95,362	97.1	14.8	168,253	97.5	26.1	78,983	97.3	12.3
Rough grazing	1,036	0.6	17.1	426	0.6	7.0	660	1.3	10.9	1,874	1.9	31.0	1,469	0.9	24.3	582	0.7	9.6
Woodland	1,269	0.7	29.5	522	0.7	12.1	51	0.1	1.2	186	0.2	4.3	1,511	0.9	35.2	758	0.9	17.6
Total area	181,200	100	27.4	77,418	100	11.7	49,812	100	7.5	98,169	100	14.9	172,534	100	26.1	81,190	100	12.3

Sources:
Agricultural Census 1971
Special computer print out, MAFF

supplies from places north and west of the sub-region. The output of the factory is distributed nationwide.

The sub-region exports or sells to the public about 60% of its potatoes, mainly through wholesalers but sometimes directly. Roadside sales and sales at local market stalls are common, not only for potatoes but also for other crops. Potato exports go mainly to London and the Home Counties, but there are also important provincial markets based on Birmingham, Bristol and Cardiff. Much of the crop is stored on farms.

Major canneries and deep freezers have been attracted to the sub-region. They take a large part of its production of fruit and vegetables, but for most of the crops the proportion going to these processors is lower than it is in the country as a whole. This is partly because of the large London demand for fresh fruit and vegetables which can be so readily supplied from the sub-region. But there is also another reason. The smaller units are often unable to comply with the standards imposed by the processor, or to produce in a way that allows preliminary processing and packing on the farm.

Crops dominate the sub-region's agriculture because local conditions make this kind of farming more profitable than livestock over most of the area: but 14% of the agricultural land is devoted to pasture, and in the north-western part of the sub-region pastures account for over 17% of the total. The 1971 agricultural census recorded 52,000 head of cattle in the sub-region – which is only about 0.6% of the national total. Dairy cattle are particularly unpopular, and the sub-region is a net importer of milk.

Pigs outnumber cattle almost four fold. The 1971 census recorded 199,000 of them in the sub-region. This amounts to almost 3% of the national total. It is a sobering thought that in this part of the country pigs are half as numerous as people. Probably about 85% of them go directly from the farmer to the slaughterer or manufacturer, by-passing the livestock markets, whose activities are summarised in Table 10.4. (They are also important for the sale of fruit, vegetables and eggs. The Cambridge market is especially important for agricultural machinery). Sheep and lambs are relatively few, numbering under 33,000 in 1971, compared with almost a quarter of a million in the Eastern Region and a national total of over 17 million. Poultry farming is a little less important than one would expect simply on consideration of total agricultural area. There were 2,360,000 birds enumerated in 1971 which is 11% of the regional and 2% of the national totals. Tables 10.5–10.11 present some further detail.

Table 10.4 Annual movements of livestock through sub-regional and regional markets, 1969

	Cattle	Sheep	Pigs	Total
Cambridge	13,661	10,926	38,529	63,116
Ely	785	12	18,890	19,687
Saffron Walden	5,792	1,883	5,330	13,005
St. Neots	4,397	3,725	31,450	39,572
St. Ives	1,215	411	13,452	15,078
Total	25,850	16,957	107,651	150,458
Norwich	63,073	13,028	168,643	244,744
Bury St. Edmunds	31,203	21,018	138,637	190,858
Southminster	426	451	370	1,247
Total Eastern Region	238,909	91,920	951,336	1,282,165

Table 10.5 Pig densities, 1971

Area	No. of Pigs	% of Sub-Regional total	Density (Pigs/1,000
ASD 1	56,556	28.4	312
ASD 2	22,138	11.1	288
ASD 3	23,184	11.6	464
ASD 4	205,911	10.3	210
ASD 5	49,330	24.8	287
ASD 6	27,363	13.7	338
Sub-Region	199,162	–	302
Eastern Region	1,766,994	–	445
England and Wales	6,903,393	–	253

Sources:
Agricultural Census 1971
Special computer print out, MAFF

Table 10.6 Distribution of sub-regional pig stock by EEA, 1971

EEA	No. of Pigs	% Sub-Regional total
Biggleswade	6,334	3.2
Cambridge	49,750	25.0
Ely	16,003	8.0
Haverhill	24,412	12.2
Huntingdon	32,204	16.2
Newmarket	13,680	6.9
Royston	22,465	11.3
Saffron Walden	12,935	6.5
St. Neots	21,379	10.7

Sources:
Agricultural Census 1971
Special computer print out, MAFF

Table 10.7 Sheep and lambs: numbers and densities, 1971

Area	No.	% Sub-Region	C.1	C.2
ASD 1	11,264	34.8	62	367
ASD 2	1,168	3.6	15	130
ASD 3	1,360	4.8	31	236
ASD 4	1,528	4.7	16	164
ASD 5	15,911	49.1	92	649
ASD 6	970	3.0	12	133
Sub-Region	32,401	100	49	541
Eastern Region	246,294	–	62	356
England and Wales	17,551,706	–	642	1,310

Note:
C.1 Sheep and lambs/1,000 acre of farmland
C.2 Sheep and lambs/1,000 acre of grass

Sources:
Agricultural Census 1971
Special computer print out, MAFF

Table 10.8 Distribution of sheep and lambs by EEA, 1971

EEA	No.	% Sub-Region Total
Biggleswade	1,108	3.4
Cambridge	11,023	34.0
Ely	670	2.1
Haverhill	1,996	6.2
Huntingdon	6,999	21.6
Newmarket	2,949	9.1
Royston	3,767	11.6
Saffron Walden	2,429	7.5
St. Neots	1,078	3.3

Sources:
Agricultural Census 1971
Special computer print out, MAFF

Table 10.9 Sub-Region poultry stock by type, 1971

Type	Number	% Total poultry
Hens and pullets for eggs	623,147	26.4
Fowls for breeding	52,493	2.2
Broilers	1,588,381	67.1
Other table fowls	28,879	1.2
Ducks	3,387	0.1
Geese	1,540	0.1
Turkeys	59,596	2.5
Total poultry	2,357,423	100

Sources:
Agricultural Census 1971
Special computer print out, MAFF

Table 10.10 Total poultry: numbers and density, 1971

Area	No.	% Sub-Region	Density (head of poultry/1,000 acres farmland)
ASD 1	1,176,502	49.9	6,500
ASD 2	222,540	9.4	2,890
ASD 3	226,743	9.6	4,535
ASD 4	158,693	6.7	1,619
ASD 5	40,240	17.0	2,333
ASD 6	171,705	7.3	2,120
Sub-Region	2,357,423	100	3,572
Eastern Region	21,287,541	–	5,380
England and Wales	111,009,735	–	4,063

Sources:
Agricultural Census 1971
Special computer print out, MAFF

Table 10.11 Total poultry distributed by EEA, 1971

EEA	No.	% Sub-Region Total
Biggleswade	181,029	7.7
Cambridge	395,694	16.8
Ely	122,978	5.2
Haverhill	119,266	5.1
Huntingdon	1,029,387	43.7
Newmarket	66,923	2.8
Royston	194,198	8.2
Saffron Walden	64,925	2.8
St. Neots	183,023	7.8

Sources:
Agricultural Census 1971
Special computer print out, MAFF

The picture that we have just described, based on the 1971 census, is very different from that of ten years previously. During the sixties the acreage devoted to crops and grass fell by 1.3%, compared with a national decline of 2.4%. But there were substantial reallocations of land to different purposes. Wheat acreage increased by 37%, compared with a national increase of 51%. The acreage devoted to barley grew by only 10%, but it remained very easily the dominant crop, taking up almost a third of the land under crops and grass. Sugar beet also increased its acreage, which was also true in the country as a whole, but the sub-region defied the national trend by having an increase, albeit a small one, in the area devoted to potatoes. More land was used for vegetables, but orchards and fruit growing used a fifth less land than they did ten years earlier. Some of the detail behind this account of changes is given in Tables 10.12 and 10.13.

Variations in acreage do not tell the whole story. Work done in the Agricultural Economics Unit of the Department of Land Economy in Cambridge University on yields per acre on a sample of farms in the eastern counties has helped us to reach some tentative conclusions about yields in the sub-region. They have to be treated with caution because the surveys undertaken by the University were not designed for our purpose. The detailed analysis is not really pertinent to this Report, from which it is excluded in the hope that it will appear elsewhere. What does seem to emerge from it is that yields per acre of wheat were rising in the late fifties and early sixties, but have since been more or less static – after allowing for weather conditions. Yields of barley increased over a longer period but then levelled out. We have no data about oats yields before 1964, since when no growth has been apparent. Sugar beet yields seem to have grown in those areas where they were lowest in the late fifties. Potato yields rose firmly throughout the sixties. The greatest improvement in yields per acre was obtained in agricultural sub-division No. 6.

When we turn to livestock we again see substantial changes. The number of cattle and calves fell by over a third during the sixties, at a time when the national figure showed a slight increase. An even greater decline occurred in sheep farming, with the 1971 flocks totalling only a third of their number in 1961. The national decline was only 8%. Even poultry farming, which grew nationally by 17%, declined by almost 9%. The only growth was in the farming of pigs. Here there was a 42% increase, which though smaller than the national increase of 51%, is important in that the sub-region began with a much higher density of pigs than is seen elsewhere in the country. Table 10.14 gives a geographical break down of the changes.

This marked reduction in the numbers of cattle and sheep has been accompanied by a diminution in the amount of grass land. We do not have very good information about this. It is possible that some of it has been associated with population growth as part of a policy not to encroach upon high quality crop bearing land: but this is a speculation rather than an observation. Part of the change has certainly been due to an extension of crop farming.

Table 10.12 Change in acreage of selected crops, 1961–71

Crop	Sub-Region						England and Wales
	1961	% total C and G	1971	% total C and G	Change	%	% Change
Wheat	132,286	20.2	181,181	21.1	+48,895	+36.9	+51.3
Barley	185,879	28.5	203,801	31.6	+17,922	+9.6	+39.6
Sugar beet	36,430	5.6	41,651	6.5	+5,221	+14.3	+11.6
Potatoes	27,235	4.2	28,242	4.4	+1,007	+3.7	−14.8
Orchards and fruit	8,645	1.3	6,915	1.1	−1,666	−20.0	−30.5
Vegetables	27,196	4.2	34,964	5.4	+7,770	+28.6	+26.7
Rest including rough grazing and woodland			163,570				
Total crops and grass	653,204		644,465		−8,739	−1.3	−2.4
Total area			660,324				

Sources:
Agricultural Census 1961 and 1971
(1) 1961: Special tabulations, MAFF
(2) 1971: (a) Sub-Region: Special computer print out, MAFF
(b) England and Wales: 'Statistical Information', MAFF Tables I, IV, V, VI, VII

Table 10.13 Changes in main crop acreages for each ASD, 1961–71

Crop	ASD 1		ASD 2		ASD 3		ASD 4		ASD 5		ASD 6	
	Change	%	Change	%	Change	%	Change	%	Change	%	Change	%
Wheat	+17,120	+45.5	+3,701	+25.4	+3,597	+37.2	+1,478	+5.5	+13,509	+50.2	+9,489	+57.1
Barley	+3,129	+5.9	+7,914	+50.6	+1,069	+10.2	+669	+4.1	+4,098	+6.5	+1,040	+3.8
Sugar beet	+353	+8.2	+184	+7.9	+1,376	+66.2	+1,402	+9.4	+2,214	+24.0	−309	−8.9
Potatoes	−112	−2.1	−1,229	−20.0	+737	+26.5	+792	+8.0	+1,019	+62.1	−204	−16.3
Orchard and fruit	−268	−22.4	−335	−39.8	−482	−10.8	−231	−56.1	−365	−27.7	−34	−8.1
Vegetables	+1,210	+21.9	−1,467	−10.5	+803	+51.3	+4,339	+99.4	+1,645	+99.6	+1,122	+652.3
Total crops	−8,283	−4.5	+1,628	+2.2	−359	−0.7	−2,233	−2.9	+249	+0.2	+257	+0.3

Sources:
Agricultural Census 1961 and 1971
1961: Special tabulations, MAFF
1971: Special computer print out, MAFF

Table 10.14 Livestock Changes in each ASD, 1961–71

	ASD 1		ASD 2		ASD 3	
	Change	%	Change	%	Change	%
Total cattle and calves	−10,132	−36.6	−714	−9.9	−2,770	−39.9
Total pigs	+22,704	+67.1	+4,437	+25.1	+10,389	+81.2
Total sheep and lambs	−23,779	−67.9	−5,473	−82.4	−2,860	−64.7
Total poultry	−201,689	−14.6	+80,501	+56.7	+71,976	+46.5

	ASD 4		ASD 5		ASD 6	
	Change	%	Change	%	Change	%
Total cattle and calves	−5,749	−50.5	−4,694	−26.7	−3,224	−38.5
Total pigs	+3,922	+23.5	+7,347	+17.5	+10,292	+60.3
Total sheep and lambs	−4,888	−76.2	−15,157	−48.8	−9,313	−90.6
Total poultry	−51,990	−24.7	+19,580	+5.0	−133,035	−43.7

Sources:
Agricultural Census 1961 and 1971
1961: Special tabulations, MAFF
1971: Special computer print out, MAFF

Table 10.15 Number and average size of holdings (crops and grass), 1971

Area	Acreage	Total SMD	No. holdings	Average size	
				Acreage	SMD
Sub-Region	644,465	4,154,224	4,518	142.6	919
MAFF Eastern Region	3,789,458		30,513	124.6	
England and Wales	23,799,668		228,634	104.1	

Sources:
Agricultural Census 1971
Sub-Region: Special computer print out, MAFF
Eastern Region and England and Wales: Special tabulations, MAFF

While this broad survey of changes in crop acreages and livestock presents some idea of the output of agricultural produce, it tells us nothing about how the industry is organised, or its pattern of employment. To study these matters we turn first to an examination of the sizes of the farms. There are two conventional ways of measuring these. One is to consider area. The other is to take account of labour inputs, measured in Standard Man Days (SMD). In Tables 10.15 and 10.16 we summarise the available information about the average sizes of agricultural holdings devoted to crops and grass. The strong bias towards arable farming has led to an average acreage that is well above the national figure. In the principal cereal areas (ASD 1, 5 and 6) the average size is over twice the average for England and Wales.

Table 10.16 Number and average size of holdings (crops and grain) by ASD, 1971

ASD	Acreage	Total SMD	No. Holdings	Average size	
				Acreage	SMD
1	177,521	866,567	857	207.1	1,011
2	75,613	799,868	660	114.6	1,213
3	48,732	463,531	772	63.1	600
4	95,362	819,764	1,082	88.1	758
5	168,253	803,339	787	213.8	1,021
6	78,984	313,740	360	219.4	872

Sources:
Agricultural Census 1971
Special computer print out, MAFF

On the other hand, although the average size of a holding is large, there is also an unusually high proportion of small holdings measuring less than 5 acres. This is especially true in ASD's 2 and 3. The pattern of farming reflects a co-existence of many small farms and a few very big ones, as well as many intermediate size.

The number of holdings has declined rapidly since the war, mainly through consolidation of land into larger units, especially in the main grain areas which are farmed with lower labour inputs. The changes between 1961 and 1971 are summarised in Table 10.17.

They have been accompanied by various economic and social implications, and since further changes can be expected it is important for us to try to get some measure of their likely extent. The Ministry of Agriculture considers that holdings involving fewer than 275 Standard Man Days can be looked upon as providing only part-time employment. Those requiring between 275 and 600 SMD's are to be considered viable, in the sense that they can support a man and his family. Farms requiring more than 600 SMD's are described as 'commercial'. According to this test, 40% of the holdings in the sub-region, accounting for just over 5% of the acreage, were too small to be viable. Almost as many were big enough to be commercial. The detail is shown in Table 10.18.

Obviously there is considerable potential for further change, absorbing many of the smaller units: but there may also be

Table 10.17 Changes in numbers of holdings and average size, 1961–71

	1961		1971		% change 1961–71	
	No. holdings	Average size	No. holdings	Average size	No. holdings	Average size
Sub-Region	7,001	93.3	4,518	142.6	−35.5	+52.8
MAFF Eastern Region	47,544	81.6	30,513	124.2	−35.8	+52.2
England and Wales	338,296	72.1	228,634	104.1	−32.4	+44.4
ASD 1	1,425	130.4	857	207.1	−39.9	+58.8
ASD 2	975	75.9	660	114.6	−32.3	+51.0
ASD 3	1,072	45.8	772	63.1	−28.0	+37.8
ASD 4	1,592	61.3	1,082	88.1	−32.0	+43.7
ASD 5	1,370	122.6	787	213.8	−42.6	+74.4
ASD 6	567	138.8	360	219.4	−57.5	+58.1

Sources:
Agricultural Census 1961 and 1971
Sub-Region 1971: Special computer print out, MAFF
Sub-Region, England and Wales, E.R. 1961 and 1971: Special tabulation, MAFF

Table 10.18 Viability of holdings in terms of SMD, 1971

Class	Number	%	Acreage	%
Part-time (< 275)	1,819	40.3	35,157	5.4
Viable (275–599)	980	21.7	71,597	11.1
Commercial (600–1,199)	818	18.1	132,473	20.6
Commercial (> 1,200)	910	19.9	405,238	62.9

Sources:
Agricultural Census 1971
Special computer print out, MAFF

a growing resistance to absorption. The small holding may well cease to be the main source of income for its operator, but the availability of part time jobs, the growth of small holding farming as a leisure pursuit and changes in subsidy policies are but some of the factors that will affect things. On balance, however, a further reduction in the number of small holdings is almost certain to take place, and it could well mean that by 1990 they would be reduced to a quarter of their present number. Any such reduction would be especially noticeable in the divisions 2, 3 and 4, which contain 60% of the vulnerable holdings concentrated onto 35% of the total agricultural area. The Fens present the most threatened area in this respect, and there the shrinkage of the peat to which we have already referred seems likely to accelerate the disappearance of the smaller unit. This may help to overcome one obstacle to the wider adoption of the soil mixing process to which we have referred.

As in the rest of the country, slightly under half of the agricultural holdings are rented. The proportion is highest in ASD's 2 and 5 (about 53% in both cases) and lowest in ASD 6 (where it is 36%). An important and interesting component arises out of holdings rented from the county councils. These are usually small holdings, and tend to be concentrated in the fruit growing and Fen area to the north of Cambridge and in the horticultural area towards Biggleswade, and stretching less densely through Meldreth to Whittlesford. In 1972 there were 975 such holdings, covering a total of about 26,500 acres. Sizes varied from 2 acres to 141 acres. Most of them were not large enough to be viable in the sense that we have used that word.

The starting point in a study of agricultural labour must always be to distinguish between members of the farmer's family and his hired workers, and between full-time and part-time workers. This is done for the sub-region, the eastern region and England and Wales in Table 10.19. It can be seen that there are not substantial differences between the sub-region and the rest of the eastern part of England, but that when compared with the national structure, farm labour depends significantly less on directors and proprietors, and correspondingly more on hired workers, especially regular full-time male workers. This could well be due partly to the comparative scarcity of dairy farming in the east. The emphasis on cropping is reflected in the high proportion of seasonal labour.

Table 10.20 shows the labour inputs of different kinds, in relation to acreage. Comparison with England and Wales is of limited use because of the wide differences between the types of farming. A more meaningful, but still slightly problematical, comparison can be made with the rest of the eastern region. It is clear that less labour per acre is used in the sub-region and this suggests that there is probably a high degree of mechanisation and rationalisation.

Table 10.19 Direct labour inputs, Sub-Region, Eastern Region, England and Wales, 1971

Labour type			Sub-Region		Eastern Region		England and Wales	
			No.	%	No.	%	No.	%
Farmers, Partners and Directors								
Whole-time		(50)	3,927	24.2	24,896	22.3	178,352	31.0
Part-time		(51)	1,105	6.1	7,818	7.0	47,871	8.3
Family workers								
Regular whole-time	(Male)	(52)	1,032	6.4	6,138	5.5	40,131	7.0
	(Female)	(53)	137	0.8	1,104	1.0	10,607	1.8
Regular part-time	(Male)	(54)	225	1.4	1,296	1.2	9,080	1.6
	(Female)	(55)	397	2.4	2,724	2.4	14,499	2.5
Hired workers								
Regular whole-time	(Male)	(56)	5,309	32.7	38,321	34.3	149,874	26.1
	(Female)	(57)	271	1.7	2,971	2.7	12,847	2.2
Regular part-time	(Male)	(58)	645	4.0	4,359	3.9	19,005	3.3
	(Female)	(59)	839	5.2	6,722	6.0	22,959	4.0
Seasonal or casual	(Male)	(60)	1,050	6.5	6,009	5.4	36,081	6.3
	(Female)	(61)	1,310	8.1	9,286	8.3	33,678	5.9
Total farmers and workers		(69)	16,247	100	111,644	100	574,984	100

Sources:
Agricultural Census 1971
Sub-Region: Special computer print out, MAFF
Eastern Region and England and Wales: Statistical Information, MAFF (Table III)

Table 10.20 Aggregated labour inputs by type and numbers per 1,000 acres, 1971

	Sub-Region			Eastern Region			England and Wales		
	No.	%	No./1,000A	No.	%	No./1,000A	No.	%	No./1,000A
Farmers, Partners and Directors	5,032	31.0	7.6	32,714	29.3	8.6	226,223	39.3	9.5
Family workers	1,791	11.0	2.7	11,262	10.1	3.0	74,317	12.9	3.1
Hired regular workers	7,064	43.5	10.7	52,373	46.9	13.8	204,685	35.6	8.6
Seasonal or casual	2,360	14.5	3.5	15,295	13.7	4.0	69,759	12.1	2.9

Source: Derived from Table 10.19

A more detailed analysis by agricultural sub-division does not yield anything surprising, but a few points may be noted. Over half of the farmers, partners and directors work in divisions 2, 3 and 4, which account for only a third of the total acreage. These are also the divisions that have 60% of the vulnerable small holdings. They are also the divisions in which family workers are proportionally most important, and where hired regular workers are used most densely. Here there are labour-intensive units, by no means all small, but engaged in those kinds of farming that are amenable to small holdings. Seasonal and casual workers also find most of their employment here, a third of them working in the Ely division. Tables 10.21–10.24 present some more detail.

About a third of the labour force is part-time, which is just slightly more than nationally. The principal difference from the national position is that seasonal or casual workers are more numerous than hired regular part-time workers. Table 10.25 shows that the proportion of part-time workers is especially high in districts 3 and 4.

A quarter of the employees are female. Only 14% of them work full-time regularly, but 55% of the seasonal or casual workers and 59% of the regular part-time workers are women. Almost a fifth of the women are members of the farmer's family. Female labour is especially important in districts 3

Table 10.21 Direct labour inputs by division, 1971

Labour type			1		2		3		4		5		6	
			No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Farmers, Partners and Directors														
Whole-time		(50)	831	27.8	724	23.1	549	28.9	767	21.9	716	21.2	340	25.3
Part-time		(51)	189	6.3	144	4.6	162	8.5	295	8.4	209	6.2	106	7.9
Family workers														
Regular whole-time	(Male)	(52)	208	7.0	184	5.9	116	6.1	256	7.3	205	6.1	63	4.7
	(Female)	(53)	27	0.9	25	0.8	23	1.2	44	1.3	14	0.4	4	0.3
Regular part-time	(Male)	(54)	45	1.5	35	1.1	26	1.4	43	1.2	57	1.7	19	1.4
	(Female)	(55)	56	1.9	66	2.1	68	3.6	86	2.4	88	2.6	33	2.5
Hired workers														
Regular whole-time	(Male)	(56)	987	33.0	1,094	34.9	385	20.2	892	25.5	1,419	42.4	532	39.6
	(Female)	(57)	57	1.9	56	1.8	24	1.3	39	1.1	87	2.6	8	0.6
Regular part-time	(Male)	(58)	124	4.1	160	5.1	69	3.6	80	2.3	147	4.4	65	4.8
	(Female)	(59)	126	4.2	244	7.8	81	4.3	210	6.0	128	3.8	50	3.7
Seasonal or casual	(Male)	(60)	181	6.0	194	5.2	157	8.3	305	8.7	141	4.2	72	5.4
	(Female)	(61)	157	5.2	209	6.7	242	12.7	485	13.8	164	4.9	53	3.9
Total farmers and workers		(69)	2,988	100	3,135	100	1,902	100	3,502	100	3,375	100	1,345	100

Sources:
Agricultural Census 1971
Special computer print out, MAFF

Table 10.22 Aggregated labour inputs by type and density divisions, 1971

	1		2		3		4		5		6	
	%	ρ	%	ρ	%	ρ	%	ρ	%	ρ	%	ρ
Farmers, Partners and Directors	34.1	5.8	27.7	11.5	37.4	14.6	30.3	11.1	27.4	5.5	33.2	5.7
Family workers	11.2	1.9	9.9	4.1	12.2	4.8	12.2	4.5	10.8	2.2	7.7	1.5
Hired regular workers	43.3	7.3	49.2	20.4	29.4	12.3	34.9	12.8	52.8	10.6	42.4	8.3
Seasonal or casual	11.3	1.9	12.8	5.3	21.0	8.2	22.6	8.3	9.0	1.8	8.1	1.6

ρ = density per 1,000 Acres

Table 10.23 Total farmers and workers and regular whole-time workers, 1,000 acres, by divisions, 1971

	1	2	3	4	5	6
Total farmers and workers/ 1,000A	16.9	41.3	39.9	36.7	20.1	17.1
Reg. whole-time workers/ 1,000A	7.1	17.6	11.4	12.6	10.6	7.5

Table 10.24 Labour input/holding by division, 1971

	1	2	3	4	5	6
Total farmers and workers/ holding	3.5	4.8	2.5	3.2	4.3	4.3
Total full-time workers/ holding	1.5	2.1	0.7	1.1	2.2	1.7

Source: Agricultural Census 1971: Special computer print out, MAFF

and 4, where horticulture and the production of root crops is so important. Much of it is seasonal or casual.

A very significant feature of the agricultural labour force in the sub-region is revealed in Table 10.26 which shows its age distribution. For agricultural workers this relates to 1969.

The table shows that in 1971 the age composition of employees in all industries was much the same in East Anglia (and presumably in the sub-region) as in England and Wales, but that in agriculture the sub-region had a labour force whose age-structure was closer to that for other industries than it was to the age-structure of agricultural workers in the rest of the country. Nationally, agriculture is at present a young persons' industry. Many more enter it than find long term employment in it. But sub-regionally agriculture has an even older age-structure than other industries. When we look at the regular part-time male workers we find that almost two thirds of those in the sub-region are over 65 years of age. Tables 10.27 and 10.28 give some detail. If the labour demands of agriculture continue to decline, this elderly structure may be advantageous, as the work force reduces through retirements rather than redundancies: but an increasing shortage of regular part-time workers seems to be quite a possibility.

As in other industries in the sub-region, unemployment is low. It varies from place to place, season to season and year to year, but Table 10.29 gives a fair representation of unemployment rates. They are higher in the Ely and Haverhill areas. In each of these there has been a rapid decline in the

Table 10.25 Whole-time/part-time labour split division, 1971

	1		2		3		4		5		6	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Whole-time	2,110	70.6	2,083	66.4	1,097	57.7	1,998	57.1	2,441	72.3	947	70.4
Part-time	878	29.4	1,052	33.6	805	42.3	1,504	43.0	934	27.7	398	29.6

Sources:
Agricultural Census 1971
Special computer print out, MAFF

Table 10.26 Age structure of labour force (Male)

	Agricultural workers (Reg. whole-time)[1]		Total employees, all occupations 1971[2]	
Age	Sub-Region (%)	England and Wales (%)	East Anglia (%)	England and Wales (%)
15–17	4.1	7.3	7.9	7.7
18–19	3.6	5.9		
20–24	9.2	13.6	12.0	12.0
25–34	17.0	20.4	19.6	20.0
35–44	22.4	20.2	18.2	19.2
45–64	40.0	29.8	38.3	38.0
65+	3.7	2.7	3.9	3.0

Sources:
(1) Agricultural Census 1969: Special tabulations, MAFF
(2) D.E. Gazette June 1972, Table 8

Table 10.27 Age structure of labour force 1969 (regular part-time males)

Age	Sub-Region %	England and Wales %
16–19	5.9	9.2
20–64	32.2	53.0
65+	61.8	37.8

Source: Agricultural Census 1969: Special tabulation, MAFF

Table 10.28 Age structure of labour force 1969 (seasonal and casual)

Age	Sub-Region %	England and Wales %
Under 20	8.7	16.1
20 and Over	91.3	83.9

Source: Agricultural Census 1969: Special tabulations, MAFF

Table 10.29 Agricultural unemployment (%), 1970

EEA	June	December
Cambridge	0.8	1.2
St. Neots	1.3	0.5
Huntingdon	0.9	0.8
Ely	2.5	1.5
Newmarket	0.3	1.0
Haverhill	1.1	2.0
Saffron Walden	0.7	1.2
Royston	0.5	0.8

Source: Department of Employment

agricultural labour force in the last decade. The Ely area requires a very seasonal labour force, and has the highest capital input per acre in the sub-region. The area around Haverhill has seen a very rapid decline in the number of holdings.

Employment data derived from the Agricultural Censuses are not easily compared with those from the Department of Employment. Using the latter, to begin, we can see that agriculture used 18% of the sub-region's insured employees in 1951 but only a little more than a third of this in 1971. On the other hand, in some of the market town areas it even now accounts for 12% or more of the employment. The main data appear in Table 10.30.

Table 10.30 Proportion of labour force employed in agriculture: 1951, 1961 and 1971

EEA	1951	1961	1971
Cambridge	7.1	4.4	2.9
St. Neots	34.6	22.7	9.3
Huntingdon	25.2	16.1	6.5
Ely	38.3	31.9	16.8
Newmarket	27.0	18.7	12.4
Haverhill	35.6	20.5	8.6
Saffron Walden	25.3	18.1	12.0
Royston	33.9	20.6	14.3
Biggleswade*	31.5	22.2	12.6
Sub-Region	17.8	12.0	6.7
East Anglia †	–	10.3†	8.1†
Great Britain	3.8	–	1.7

* Unadjusted figures † Figures for 1965 and 1969 only

Source: Department of Employment, E.R.II's

Yet there is an important fact to keep in mind. Data from this source suggest that nearly 11,000 people are recorded as working in agriculture, but the agricultural census records that over 16,000 persons rely directly on agriculture for all or part of their income. If we assume an age structure comparable to that for East Anglia, and activity rates somewhere between the East Anglia rate of 50% and the South East rate of 58%, we can conclude that perhaps about 9%–10% of the labour force works in agriculture.

There are, however, other industries very dependent upon agriculture, and we need to have some idea of employment in these. Agriculture requires a variety of management, accounting and similar services. It engages specialist crop sprayers and machinery experts. Farmland and buildings have to be maintained. Drainage is required. Fertilizers, feeds and packaging materials have to be bought. And so on. It also provides products that usually need some form of processing, and of distribution.

It is not possible for us to pick out with any precision the amount of employment that arises in these and other jobs because of the demands of agriculture. By considering E.R.I. returns, we have produced some first estimates of the numbers of people in various industries whose work arises mainly out of agriculture. They are tabulated in Table 10.31.

Table 10.31 Ancillary employment by type – first approximation, 1970–71*

	Order	No.	%
I	Agriculture, forestry, fishing	341	2.9
II	Mining and quarrying	37	0.3
III	Food, drink and tobacco	2,779	23.9
V	Chemicals and allied industries	823	7.1
VII	Mechanical engineering	1,527	13.5
IX	Electrical engineering	29	0.2
XII	Metal goods (not elsewhere specified)	62	0.5
XIV	Leather, leather goods and fur	351	3.0
XVI	Bricks, pottery, glass, cement etc.	16	0.1
XVII	Timber, furniture, etc.	40	0.3
XVIII	Paper, printing and publishing	1,150	9.9
XIX	Other manufacturing industry	21	0.2
XX	Construction	14	0.1
XXII	Transport and communications	1,278	11.0
XXIII	Distributive trades	1,412	12.2
XXV	Professional and scientific services	1,535	13.2
XXVI	Miscellaneous Services	141	1.2
XXVII	Public administration and defence	67	0.6
	Total	11,613	100

*For the 8 EEA's of the Employment Sub-Region

Source: Department of Employment: Employers Registers 1970–71

For industrial groups XVIII and XXIII the printed figures are probably too high. The industrial linkages survey was then used to work out the extent to which the firms whose E.R.I. returns have been aggregated in Table 10.31 are really ancillary to agriculture, and the degree of internal dependence in the sub-region. The result is shown in Table 10.32.

Table 10.32 Corrected ancillary employment, 1970–71*

	First approximation	True ancillary agricultural activity	Internally generated ancillary activity
Cambridge	5,145	4,530	825
Huntingdon	1,088	948	296
St. Neots	431	349	152
Ely	1,451	1,166	538
Newmarket†	1,366	544	256
Saffron Walden	848	598	143
Haverhill	964	904	252
Royston	320	272	161
Total	11,613	9,311	2,623

*Very approximate figures for Biggleswade EEA are as follows: 806, 716, 210

†Excluding horse racing activities

Source: CSRS estimates

This too, must be taken as very rough: but it suggests that in all about 9,000 jobs in the sub-region depended essentially upon agriculture, and that about 2,600 of these arose from agricultural activity within the sub-region. We believe that on balance these are under-estimates.

Many of the locations of the main centres of ancillary employment are in rural areas. The ratio of male to female employment in these jobs varies. Table 10.33 summaries our estimates.

Table 10.33 Male-female split ancillary activity (%), 1970–71

EEA	Male	Female
Royston	86	14
Haverhill	69	31
Saffron Walden	78	22
Newmarket	78	22
Ely	81	19
St. Neots	80	20
Huntingdon	65	35
Cambridge	67	33
Total	71	29

Source: Census of Population

As in other places, and for so long, there has been a drift from the land. Between 1961 and 1969 the hired labour force on the sub-region's farms decreased by almost a third. One needs to consider why this happened, what effects it had, and what alternative employment was undertaken. Miss Ruth Gasson of the University of Cambridge has kindly undertaken an important study of this for use. It is printed in this Report as Appendix 4. Her main conclusions are worth noting now.

Miss Gasson undertook a detailed examination of three areas: Cambridge, Haddenham and Downham. These areas were chosen to represent extremes of urban influence, but they had similar farming systems and scales of operation. She therefore assumed "that economic and social rather than technical farming factors were responsible for the differing rates of loss of workers over the preceding ten years.

"Since any surplus labour on Cambridge farms was probably absorbed long ago, industrial employers seeking workers today have to recruit from less accessible rural areas. Paradoxically, during the period covered by the survey competition for labour may have been less marked in the Cambridge–Histon–Milton area than in villages like Haddenham and Wilburton and even beyond Ely; 14 of the 23 workers leaving agriculture for industry came from the Downham area. Similar proportions from each area had moved to other kinds of manual work, for Cambridge workers often in the city, while workers from the Isle of Ely more often became lorry drivers or found other work in the rural area. Another significant discovery was that workers leaving farms in more rural areas were much more likely than those near the town to be seeking better wages. Higher earnings would usually be sought outside agriculture but Cambridge workers more often moved for career advancement, to a better job on another farm.

"Since plenty of alternatives have been available to dissatisfied workers in the Cambridge area, those remaining on farms have probably made a conscious decision to stay, taking into account personal preference for land work and the real value of earnings and a tied house in an urban setting. In rural parts of the Isle of Ely there are still many workers who remain on the land because they see no obvious alternative. Increasing personal mobility of farm workers and recruiting drives by urban employers, with their offers of free transport to work, must be changing the situation and causing many workers to appraise their position more carefully. The Downham area is perhaps in such a state of transition, with a large outflow of workers to factories and other occupations but many still remaining on farms where they have worked all their lives.

"Turnover of labour was higher on Cambridge farms than elsewhere. This did not mean that conditions on farms were less satisfactory but reflects larger numbers of young and elderly workers leaving. Research farms tended to employ older workers, since tasks often demanded particular care and steadiness rather than a prodigious output per worker. Farmers near towns may also find it advantageous to employ youths as there is a large pool to choose from and boys can live at home, which saves the employer having to find accommodation. With a young labour force, however, there will inevitably be some unsatisfactory workers dismissed and others leaving to join the Army, attend College or take other jobs. Haddenham farms similarly recruited and subsequently lost a high proportion of young workers.

"Despite the high rate of turnover, Cambridge farmers apparently had little trouble in replacing workers. Over the ten years their combined labour force showed a net increase, compared with a small decrease in the Haddenham area and a large decrease in the more remote Downham area. Nor was this increase confined to a few atypical farms for each category of worker had increased most or decreased least in the Cambridge area. Even family labour had increased on Cambridge farms, despite the fact that farming was less of a family affair and more a commercial business here than in the Fens. Farmers in the Isle of Ely were making greater use instead of other sources of labour, particularly seasonal workers on Haddenham farms and agricultural contractors in the Downham area. Plenty of labour of this type seemed to be available and increasing use would help to make up for the decrease of regular workers.

"Whether they were more conscious of urban competition for labour, because they had lost more workers in the past or because a new type of commercial farmer was emerging, farmers in the Cambridge area and to some extent Haddenham also were beginning to adopt a more 'industrial' approach towards their workers. While workers in more rural areas were usually *given* the traditional perquisites such as potatoes and wood, those nearer the town were being treated more like workers in other industries, being provided with working clothes and included in private pension schemes, but having the *option* of working overtime and being offered produce at cost rather than being presented with it. Good

relations undoubtedly existed on nearly every farm visited but in the rural areas there was more emphasis on fostering a strong *personal* relationship between employer and worker, the farmer helping the worker personally in many ways. Many farmers near the town likewise showed personal concern for the welfare of their workers but on larger farms the tendency was to provide the opportunity but let the worker choose how far he would participate. The contrast between providing a rent-free tied cottage or offering to help the worker to buy his own house illustrates the difference between the two approaches.

"Farmers in the Fens may still have considerable scope for economising in labour; perhaps they are prepared to see many more workers leave before they try to stem the drift. The indications from this survey are that if farmers in more remote rural areas want to stabilise or increase the labour force in future, they may have to consider adopting the kind of approach used by farmers operating under conditions of labour competition. Possibly the time will come when farmers in general will provide protective clothing and pension schemes for workers. Perhaps traditionally perquisites and payments in kind will be replaced by benefits which the worker can accept or reject as he chooses. It seems that farmers located near towns have a real advantage over those in more rural areas when trying to recruit workers. Since the Fen farmer cannot normally provide a cottage on his farm which is in or close to a town, he may in future be obliged to provide subsidised transport rather than subsidised housing; some farmers in the survey do so already. Another possibility would be to sell farm cottages in the droves as holiday homes and either pay workers a little more to enable them to rent Council houses, or buy houses in towns like Ely, March or Littleport to rent to workers.

"With physical expansion of built-up areas, increasing ease of access to towns and urban values and styles of life permeating rural culture, the spread of urban influence is inevitable. One lesson from this study is that urban influence in agriculture may have its advantages. When farm workers have the opportunity to move to industrial or urban jobs, only keen workers will remain on the land and they will benefit from higher earnings and conditions of employment more akin to those in industry. Farmers who have to rationalise their use of labour and perhaps make some changes in their labour policy will also stand to gain, in the long run, from having a more efficient, stable and contented labour force."

We have also relied on the University of Cambridge for information about farm capital. Data for the sub-region are not very good, and some of our derived estimates need to be treated with considerable reserve. There are four main elements in the farmer's capital: his stocks of produce, wholly or partly grown, and the preparatory work accomplished in a previous period; his livestock; his implements and machinery; and his land and buildings. Frequently the last category is omitted.

Estimates derived from work done in the University of Cambridge suggest that in four of the agricultural subdivisions the value of capital per acre was approximately £46 in 1971, omitting land and buildings, while in sub-divisions 3 and 4 it was much higher, averaging about £67. The figures for 1960 were slightly higher for sub-divisions 1, 2, 5 and 6, at around £48, and much higher for sub-divisions 3 and 4 at about £87. These are figures that need to be treated with some reserve, especially since there have been problems of allowing for changes in prices and qualities. On the other hand, the period certainly saw an amalgamation of holdings with consequent economies in the use of machinery, a fall in the numbers of livestock, and falling farm incomes that since 1964 have led to declining investment. This last point is amplified in some of the Farm Management Surveys published by the University:

"As farmers cannot avoid paying the current price for normal goods and services (e.g. fuel, transport, labour etc.) the capital required to finance most farm activities is affected by changes in money values. Farm incomes, however, have not kept pace with inflation so it follows that there has been a fairly constant reduction in the rate of return on investment. It is evident that some attempt has recently been made to combat this situation by restricting expenditure on new machinery; or the situation has been the direct cause of such a policy. Changes in the level of annual valuation demonstrate how the decision to buy less has been progressively adopted since 1968.

For example, if allowance is made for inflation by converting to constant values, then machinery and equipment in 1968,

Table 10.34 Prices and acquisition of new machinery for FMS area

	Price paid per unit – £			Total acres per unit bought		
	1964	1970	1971	1964	1970	1971
Tractors	980	1,520	2,010	511	729	1,100
Cars	900	1,450	1,510	847	2,936	1,261
Vans, Land Rovers	580	790	960	3,716	4,462	6,414
Trailers	270	470	410	2,477	6,562	7,015
Ploughs	140	340	390	1,790	3,380	4,490
Sprayers	190	240	290	4,600	12,400	5,100
Combines	2,300	3,730	4,800	1,695	4,132	6,603
S. Beet harvesters	510	1,110	1,880	4,025	8,580	14,030
Potato harvesters	930	1,690	1,960	6,440	8,580	10,860

Source: FMS, 1971

Table 10.35 Income per acre (£), 1958–71

Divisions	58	59	60	61	62	63	64	65	66	67	68	69	70	71
1	8.4	7.9	13.3	9.8	17.0	16.3	10.7	12.6	12.5	9.1	5.9	7.7	15.0	19.2
2	7.2	7.2	11.0	8.7	14.0	12.0	10.5	9.9	10.3	9.0	6.0	8.8	11.2	16.4
3 and 4	11.8	20.3	14.9	21.0	17.5	16.3	20.6	19.9	34.1	23.7	12.8	28.8	26.1	28.5
5	5.9	6.6	8.8	7.6	11.0	10.0	10.3	7.2	8.1	9.0	6.0	9.8	7.4	13.6
6	8.1	7.5	12.6	11.0	13.7	12.2	12.3	13.4	11.7	12.4	8.4	15.7	12.0	17.4
Sub-Region	8.3	15.0	12.1	11.8	14.8	13.0	13.1	12.6	15.8	12.7	7.8	14.1	14.7	19.3
Eastern Region	9.2	9.2	12.3	10.6	13.5	12.9	13.2	13.2	14.7	12.9	8.5	12.7	12.2	17.1

Sources:
University of Cambridge, School of Agriculture, Farm Economics Branch Report, Nos. 50, 54, 57: Report on Farming 1968/9, 1959/60, 1960/61.
University of Cambridge, Department of Land Economy, Farm Economics Units, Farm Management Survey, Harvest Years 1961–71.

1969 and 1970 were worth 93 percent, 86 percent and 80 percent respectively of the 1964 equivalent." (FMS, 1970).

"Evidence was provided in the last bulletin of a recent restraint shown by farmers in the purchase of new equipment and the association of this factor with farm income levels that failed to stay in line with the cost of living. After allowing for inflation, the valuation of machinery on farms in 1971 was worth only 94 percent of the figure for the previous year suggesting that the trend to buy less had not been halted. The following details, relating only to new items are considered revealing." (FMS, 1971). (Table 10.34).

Whether the trend of reduced expenditure on farm machinery is localised or more general, it clearly impinges on those parts of the sub-region that produce agricultural machinery. It is also likely eventually to affect productivity. The Farm Capital Grant Scheme which began in 1971, may help to reverse this trend, although it will be of little use on the smaller holdings, whose amalgamation may therefore be accelerated. The scheme embraces the earlier Farm Improvement Scheme, the Field Drainage Scheme and various agricultural investment grants, so that to a large degree it consolidates rather than innovates. Some statistical detail of farm machinery and some personal comments on it by a well-informed official who has to remain anonymous, are available to the planning authority.

The Farm Management Survey conducted by Cambridge University School of Agriculture also provides information that has enabled us to make some approximate estimates of farm incomes* and related matters in the sub-region and its agricultural sub-division. Table 10.35 gives annual estimates of income per acre in the sub-divisions. The estimates for Sub-Division 2 have to be treated with greater than usual reserve.

Strictly comparable data are not available for the rest of the country, but it appears that for Great Britain as a whole, income per acre in 1970 was about £20. This very rough estimate suggests that except in sub-divisions 3 and 4, incomes per acre are perhaps a little low in the sub-region. One must not attach too much importance to this. Undoubtedly in some areas more than in others farm incomes can be easily, innocently or intentionally wrongly recorded. Moreover, even if the average income per acre is low, there may still within that area be farms on which the income per acre is high. This is shown in Table 10.36 which reveals that although the average farm in sub-division 5 had the lowest income per acre, the ten most profitable farms in that division had higher incomes per acre than the top ten in any other division. A further point is that one must not confuse income per acre with either income per farmer or income on capital employed.

Table 10.36 Farm income per acre, all farms and 10 most profitable for all sizes, 1971

Division	Average farm	Average 10 most profitable farms
1	19.2	37.4
3 and 4	28.5	50.6
5	13.6	57.6
6	17.4	34.7

Source:
University of Cambridge, Department of Land Economy, Agricultural Economics Unit, Harvest Year 1971 (Farm Management Survey) – Tables 10, 11, 14, 15.

Further calculations based on the surveys have led to Tables 10.37 and 10.38 which indicate not only the income per acre in 1971 but also estimates of average income per holding and the percentage return on capital employed. This last set of results has to be treated cautiously, embodying as it does any errors in estimates of capital as well as those in estimates

Table 10.37 Total farm income and income per holding – Sub-Region and Eastern Region, 1971

Division	Income/Acre (£)	Total Income (£M)	Average Income/ Holding (£10^3)
1	19.2	3.41	3.97
2	16.4	1.24	1.87
3 and 4	28.5	4.11	2.21
5	13.6	2.29	2.89
6	17.4	1.37	3.81
SR	19.3	12.44	2.75
ER	17.1	65.07	2.13

Source:
Estimates derived from University of Cambridge, Department of Land Economy, Agricultural Economics Unit, Farm Management Survey, Harvest Year 1971.

* Defined as 'total gross margin, including miscellaneous income, less fixed costs, i.e. the balance available to defray interest on owned and borrowed capital and to reward the farmer for his manual and managerial labour'.

Table 10.38 Return on capital (%), 1968–71

Division	1968	1969	1970	1971
1	7.9	10.5	21.1	23.7
2	8.0	12.4	17.8	21.6
3 and 4	8.9	25.4	19.9	22.0
5	8.2	14.3	9.2	16.0
6	9.9	19.9	14.4	19.6
SR	8.7	15.5	16.4	20.4
ER	9.4	14.2	12.3	18.1

Source:
Cambridge University, Department of Land Economy, Agricultural Economics Unit, Farm Management Survey, Harvest Years 1969/71 (Table 19)

of incomes. It is interesting to notice, however, that the percentage return on capital appears to vary considerably less from one sub-division to another than does income per acre.

Another interesting set of statistics is based on the gross margin. Table 10.39 gives the gross margin per acre for various activities in the different sub-divisions. "The gross margins of cash crops and grazing type livestock are recorded in terms of 'per acre used'. Cereals and pulses fed to livestock are regarded as cash crops and charged to livestock at nominal market values. For the livestock enterprises, therefore, 'per acre' should be interpreted as 'per forage acre'. This system enables straightforward comparisons to be made between the relative profitability of cash crops and land used for forage and grazing although care must be taken when making any between-farm comparisons of beef enterprises. This is because cattle may be fed intensively on concentrates, or depend heavily on by-products. In such cases they may require only a small area for hay and one would expect a relatively high Gross Margin per forage acre. In the case of pigs and poultry, which very seldom rely at all on forage, the results in terms of 'per acre' would be meaningless."

The differing levels of gross margin do not necessarily show likely profit because of different labour and capital requirements. Although there is considerable variation from one division to another, cereals generally give the lowest gross margin per acre, followed by roots and the intensive horticultural crops. Livestock tends to yield the highest gross margin per acre. Different levels of fixed costs tend not to even out these differentials. The higher levels of income per acre nationally are now readily explicable given the national bias towards livestock production. It is notable that the sub-region concentrates on the production of those crops (cereals) with the lowest gross margin, which testifies to the importance of physical conditions in determining the crop pattern. In areas where the more profitable crops can be grown the opportunity is taken as when roots, potatoes and other crops are grown in the Fens, and horticulture practised in divisions 2 and 3. On the other hand, such factors as crop rotation, international agreements and restrictions laid down by marketing boards limit the extent to which the opportunity to specialise in profitable lines can be taken.

We are now in a position to estimate the proportion of the gross margin contributed by certain crops in each of the sub-divisions. The results are shown in Table 10.39. Once again, we have to remember that estimates of this kind may contain sizeable errors. Despite this, however, there is one striking point emerging. Our earlier analysis based on physical considerations seems to have suggested that livestock farming was of little importance. Here we see it accounting for 18% of the gross margin over the sub-region. The physically smaller intensive farming is economically more important than it would seem to be at first sight.

The farmer's income depends, of course, not only on his proceeds from sales, but also on subsidies and other support, including the fact that he enjoys certain services provided out of local authority rates. Common Market policies will change much of this.

The hired farm labourer in East Anglia has an average income lower than the national average for farm labourers. In recent years the difference has been about £1 a week. The information that we have that might enable us to make inferences about incomes in the Sub-Region points in both directions, and we have had to conclude that, unreliable though it is, the East Anglian average is our best estimate. In 1971 it gave the hired regular whole-time worker an average of £19.51 per week.

Average hourly earnings for men employed on farms are very low compared with the similar figure for other industry. The disparity for youths is less, and it is less again for women. Girls seem to be paid a little more per hour on the farms. Recent figures are given in Table 10.40.

Table 10.39 Gross margin per acre (£) for major crops, 1971

	Divisions						
	1	2	3 and 4	5	6	SR	ER
Wheat	49.9	48.9	49.0	47.9	53.4	49.7	49.8
Barley	32.1	31.8	32.4	31.5	31.0	31.7	31.7
Potatoes	69.0	82.1	125.0	95.2	112.8	91.2	96.5
Sugar beet	88.5	91.9	105.2	95.3	92.7	98.8	98.3
Brassicas	103.5	80.0	NA	56.4	58.8	79.7	79.1
Soft fruit	102.0	51.0	249.0	NA	NA	192.2	121.7
Livestock	105.7	94.8	560.5	84.0	142.4	178.4	121.2
Total crop and livestock	48.5	46.9	75.7	45.3	49.0	53.6	55.3

Source:
University of Cambridge, Department of Land Economy, Agricultural Economics Unit, Farm Management Survey, Harvest Year 1971, Tables 11, 13, 14, 15, 18.

Table 10.40 Average hourly earnings, agriculture and industry, 1970

	Agricultural workers[1]	Manual workers in industry[2]
Men	38.0	57.0
Youths	23.0	33.5
Women	29.0	33.5
Girls	22.0	21.5

Source:
(1) Report of the Wages and Employment Enquiry for Year Ending 30th September 1970. Earnings and Hours of Hired Agricultural Workers in England and Wales – Economics Division, MAFF, Table 3A.
(2) New Earnings Survey 1970. Department of Employment 1971.

We cannot escape from the conclusion that agricultural workers are paid less well than those in other work; and in some parts of the sub-region this becomes very important. We have no useful information on earnings of part-time, seasonal and family workers. We must also note that our statistics are out of date. Even since this analysis was undertaken, rising commodity prices have boosted incomes to an extent that is at present unknown.

All in all, agriculture is thus an industry that directly employs about 9 or 10 percent of the sub-region's labour force but on which perhaps another 6 or 7 percent of toal employment is heavily dependent. It is this, and the fact that it permeates the whole sub-region, that makes it so important. We have seen that the precise nature of agricultural activity varies appreciably over the sub-region. Its crops are extremely varied, but also highly specialised. Almost half of the country's celery is grown there, as are a fifth of its sprouts. These two examples alone illustrate the national importance of its crops. Livestock, too, is important, but (except for pigs) less so than ten years ago. There has been a parallel diminution in the amount of grass land. Farms are tending to become bigger, and many of the small holdings seem to have only limited prospects. Employees' earnings are low, and the workforce tends to be more elderly than one might expect. For a variety of reasons there has been a marked drift from the land, not necessarily to the detriment of agriculture.

We began this chapter with an account of the physical features of the sub-region, and now we must return to them, for changes of the kind that we have described have had their impact on the rural environment. New types of buildings, such as livestock factories, silos and grain driers have appeared. Fields are bigger with fewer hedges, less grass, less livestock, and often less obvious seasonal variations in the crops. Blocks of chopped straw lie where stately stooks once stood. These are but a few of the more obvious consequences.

Amongst the many reasons for our having larger fields is the growth of mechanisation. Farm tractors and other machinery operate more easily in the absence of hedges. Much of it is expensive and shared between groups of farmers, or hired, and at times it is used with less regard to the topography and such matters as erosion than one would expect.

Machinery facilitates the cultivation of new areas and this is not always undertaken wisely. Quite apart from the impact on wild life and landscape of such actions as the removal of woodlands and shelter belts, there are often consequences for drainage and erosion by water and wind. The careful farmer is sensitive to these: but not all farmers are careful.

The chemical industry too has had its effects. Many of these have been beneficial to the landscape and the rural environment: but much wildlife, both fauna and flora, has suffered, sometimes deliberately but often because the full consequences of fertilisers and pesticides and their indiscriminate use are not appreciated. In an area where agriculture is so very important it is even more necessary than elsewhere that the farmer should exercise greater caution in these matters.

There are, too, other manifestations of a neglect or an inability on the part of some farmers to consider their contribution to the appearance of the countryside. The majority of farmers are sensitive to these matters, but others alter or erect buildings and gates with little regard to how they look. Sometimes this is for financial reasons. With changing techniques, facilities and markets, the farmer has to change his ways. If we bemoan the disappearance of hedgerows we may remind ourselves that for the farmer the alternative could be a disappearance of his profit through a refusal to keep pace with his competitors. Where then would our well-kept farms be? However much the general public may like the countryside to look nice, the farmer has to earn his living from it. On the other hand, well-kept farms and fields in whose appearance the farmer obviously takes pride produce respect from others. It is a matter in which town-dwellers and country-dwellers must co-operate. With the growth of car usage and leisure time, the town-dweller affects the rural landscape and life more and more. He often does not understand it sufficiently to leave it unaffected: but he should try to do so.

Chapter 11

The Ely area

In Part One of this report we concentrated on problems that are particularly important to Cambridge. The first two chapters of this second part have been concerned with a fairly broad survey of the sub-region's demography and its basic agricultural background. Now we give an account of some of the principal features and problems of different parts of the sub-region, before going on to look at other matters either at a more aggregated level or in more detail. While the sub-region has one magnet at its centre, the market towns are important minor magnets, especially for employment and shopping. If we are to appreciate these matters properly we need to look at each market town and its hinterland. For statistical purposes the employment exchange area forms the best definition of this, although at times we have had to modify it.

The first area to be considered in this way is centred on Ely. On a low isolated hill that looks over miles of flat fen a cathedral has stood for thirteen centuries, skirted by the River Ouse and providing a focus for the growth of an ancient market town. Sixteen miles north-east of Cambridge, it is the cathedral city of the Fens, and its historic interest and general charm have made it increasingly important as a tourist centre. It serves an area that is predominantly agricultural, with some of the best farming land in the country.

For the purposes of this study, we have considered the old employment exchange area, as it existed before the transference to it in 1967 of the whole of the parishes of Soham and Wicken, from the Newmarket EEA. Thus the area is composed of the cathedral city (which constitutes Ely Urban District) and most of Ely Rural District. This area corresponds fairly closely to Ely's effective hinterland, containing as it does nearly 95% of the people revealed by the 1966 census to be working in the Urban District.

Table 11.1 Population changes, 1951–1971

Area	% Growth 1951–61	% Growth 1961–71	% Growth 1951–71
Ely EEA	-1.2	6.1	4.8
Sub-Region	10.6	21.5	34.4
East Anglia	7.4	12.9	21.2
England and Wales	3.4	5.7	11.4

Source:
Registrar General's Mid–Year Civilian Estimates
Census of Population 1961 and 1971
Local Population Estimates

Table 11.2 Total civilian population, 1951–1971

Area	Population		% Growth	Population	% Growth
	1951	1961	1951–61	1971	1961–71
Ely UD (Urban)	9,410	9,400	-0.1	9,985	6.2
Rest of EEA (Rural)	14,770	14,490	-1.9	15,364	6.0
EEA Total	24,180	23,890	-1.2	25,349	4.8

Source:
Registrar General's Mid-Year Civilian Estimates
Census of Population 1961
Local Population Estimates

Ely is isolated. It has little industry, only a very limited range of jobs, and few of the social attractions of a larger town. While it does, of course, have much to offer, it has not attracted either industry or residents on any appreciable scale in recent decades, although there are signs of change.

In Table 11.1 we show the rate of change of population of the employment exchange area compared with the rest of the sub-region, with East Anglia and with England and Wales. In the fifties there was a depopulation, and in the sixties a low growth. The rural part of the EEA declined more rapidly than the urban part in the fifties, but grew almost as rapidly as the urban area in the sixties, as is shown in Table 11.2. In the fifties the city experienced net emigration, as it did early in the sixties, but by 1971 the flow had been reversed. The overall effect is shown in Table 11.3.

Figure 11.1 shows the population distribution and changes in more detail. The increases in population tended to be in the south-west, and particularly in Haddenham where policy encourages a limited growth. Apart from Ely itself, Littleport is the only settlement that has much to offer in the way of non-agricultural employment. People seeking work tend either to commute or to move out of the area. On the other hand, there are indications that people with jobs in Cambridge are tending to seek houses in the area. The net migration out of the Urban District in the fifties is to some extent reflected in the age distribution, as can be seen from the relevant age pyramids in Chapter 9.

Table 11.3 Natural change and migration, 1951–1971*

Area	Components of change	1951–1961	1961–1971
Ely UD	Natural	330	287
	Migration	-323	203
	Total	7	488
	Migration as % of total	–	41.6
East Anglia	Natural	64,636	86,910
	Migration	38,121	120,520
	Total	102,757	204,430
	Migration as % of total	37.1	58.9

*Total Civilian Population

Source: Registrar Generals Estimates

One of the reasons for the emigration from Ely has been its dependence on the agricultural industry in which employment is almost everywhere declining. The recent closure of a brewery as part of a rationalisation programme illustrates another kind of reason.

As can be seen from Table 11.4, during twenty years employment in agriculture declined from 2991 to 1187, over a period when total insured employment in the EEA fell slightly from 7806 to 7691. It is important for us to put this change into its proper perspective. In 1951 agriculture

Table 11.4 Employment Structure, 1951 and 1971*

Employment Sector	1951				1971				
	EEA		Sub-Region	GB	EEA		Sub-Region	East Anglia	GB
	No.	%	%	%	No.	%	%	%	%
Agriculture	2,991	38.3	17.8	3.8	1,187	15.4	6.5	7.3	1.6
Manufacturing	1,114	14.3	21.5	44.2	1,538	20.0	30.7	34.0	40.0
Construction	496	6.3	8.0	6.4	865	11.2	7.1	6.9	6.0
Services	3,205	41.1	52.7	45.6	4,076	53.0	55.6	51.6	52.1
Not surveyed	–	–	–	–	25	0.3	0.1	0.2	0.3
Total	7,806	100.0	100.0	100.0	7,691	99.9	100.0	100.0	100.0

*Total Insured Employees

Source: Department of Employment, E.R.II

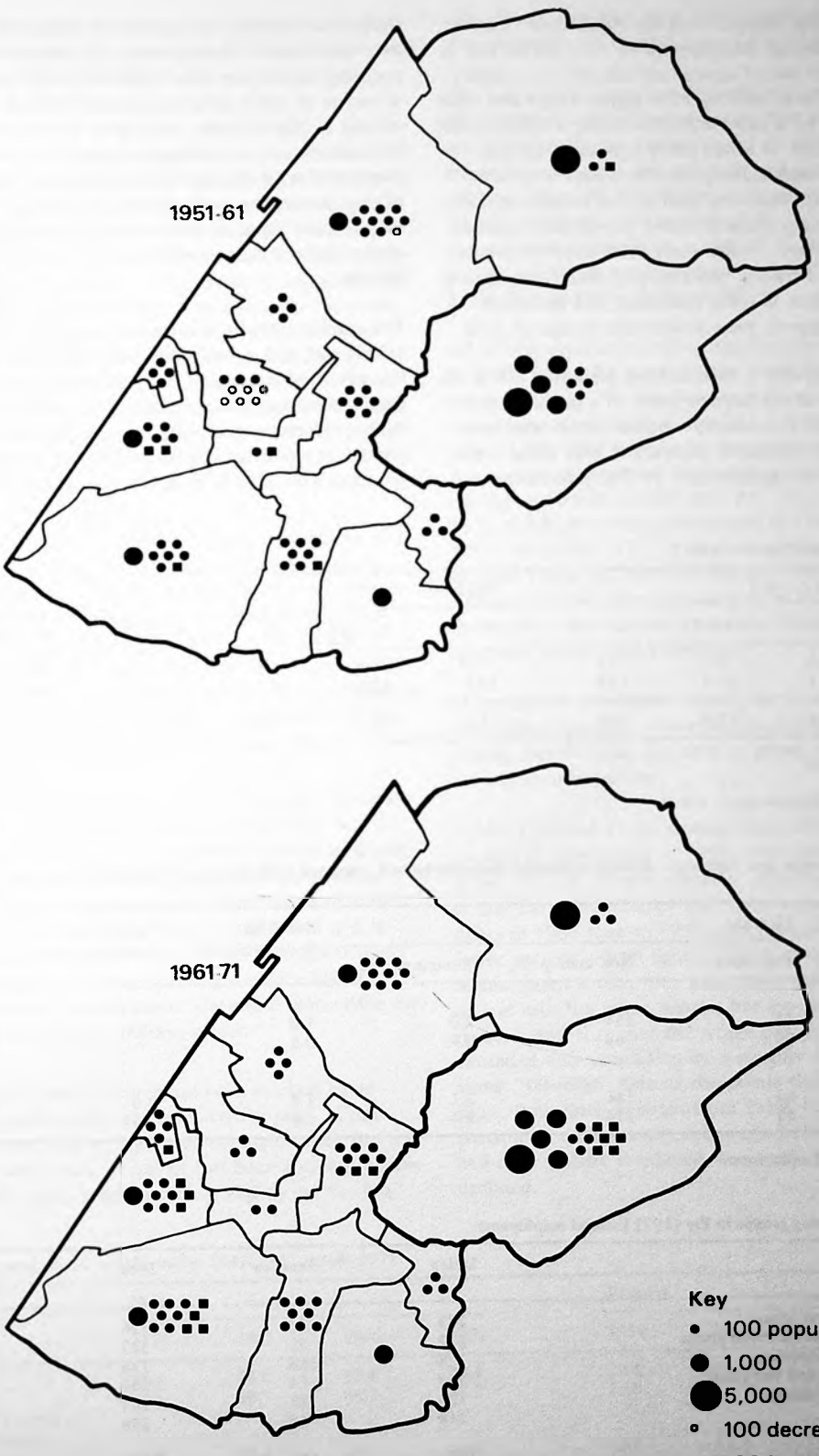


Figure 11.1 Ely: Population distribution and change; 1951-61, 1961-71

employed 3.8% of the nation's working population. Twenty years later the percentage had dropped to 1.6. As we saw in Chapter 10 this shift out of agriculture was due to a variety of reasons. Towns were offering both higher wages and what some considered to be a more attractive form of life than the countryside. The drift to urban life was pushing up farm wages and in some cases making suitable labour very scarce. Mechanisation was an important part of the answer, as was a marked move towards more intensive production methods requiring less manpower. Quite apart from this, the pattern of international food trading was changing, due to changes in price levels, production in other countries, and technical advances in the transport, preservation and storage of food.

Spread over twenty years, a decline from 3.8% to 1.6% in the national figures would not present much of a problem if it were also spread over the country. But in fact it was, as it was bound to be, concentrated particularly into those areas that depended most on agriculture. To find jobs for something approaching a quarter of the employed population is no easy task, even in twenty years. In the Ely employment exchange area it has been achieved partly through the growth or arrival of other industries, partly through a growth in commuting to places south, and partly in the breach, reflected in low activity rates, a relatively high registered unemployment (compared with the rest of the sub-region) and an emigration of population, especially during the fifties. Tables 11.5 and 11.6 present some statistics that illustrate the EEA's performance and compare it with that in the sub-region and Great Britain.

The employment in manufacturing is linked to an important extent with the agricultural background of the area, notably through food processing and agricultural engineering. Other employment includes agricultural merchants and various jobs in the collection, packaging and distribution of food. An important source of employment is the British Sugar Corporation who provide work for over 200 persons at their beet

Table 11.5 Employment Growth, 1951*

	1951–1961			1961–71			1951–71		
	EEA	Sub-Region	GB	EEA	Sub-Region	GB	EEA	Sub-Region	GB
Male	-7.0	9.6	6.5	-1.7	14.8	-2.6	-8.6	25.8	3.7
Female	-3.1	21.4	12.6	19.0	32.1	7.6	15.3	60.4	21.2
Total	-5.9	13.4	8.6	4.7	20.8	1.0	-1.5	36.9	9.7

*Total insured employees

Source: Department of Employment, E.R.II

Table 11.6 Unemployment and Vacancies: Average registered unemployed and registered unemployed and registered vacancies: 1961–66 and 1967–71

Period	EEA Ely			Sub-Region % unemployed	East Anglia % unemployed	GB % unemployed
	Nos. Vacs.	Nos. unemp.	% unemployed			
1961–66						
January	44	154	2.0	1.0	–	2.1
July	40	68	0.9	0.5	–	2.4
1967–71						
January	43	156	2.1	1.4	2.0	2.7
July	55	174	2.4	1.4	2.4	2.5

Source: Department of Employment

Table 11.7 Manufacturing groups in Ely (1971 insured employees)

Industry Group		Males	Females	Total	% of Manuf. in Ely
III	Food, drink and tobacco	283	43	326	21.2
VI	Engineering and electrical goods	272	55	327	21.3
XII	Clothing and footwear	8	168	176	11.4
XV	Paper printing and publishing	173	74	247	16.1
XVI	Other manufacturing	127	77	204	13.3
	Remainder	218	40	258	16.8
	Total	1081	457	1538	100.1

1958 SIC Groups

Source: Department of Employment, E.R.II

processing plant at Queen Adelaide. The food, drink and tobacco group employed 326 persons in 1971, compared with 720 in 1951. In 1972 a brewery closed, reducing further the employment in this group.

Table 11.7 presents some more detail of the present composition of employment in manufacturing industries in the Ely area. In Ely itself there are two large employers manufacturing agricultural machinery for national and international distribution. Another important growth has occurred in the paper industry, which includes two companies engaged in the production of packaging products. There are also two companies making clothing, drawing upon the fairly abundant female labour of the area, especially in Ely itself and Littleport. Most of Ely's new industries, including various manufacturers in plastics and the making of lampshades are in the 'other manufacturing category', while the 'remainder' group includes employment in the construction of small boats, mainly for leisure use on inland waters.

Given that employment in manufacturing totals only 1538 it is not surprising that there is in all only a narrow range of jobs available; and given that the total employed population is only 7691 it is not surprising that those employers who are searching for a new location with an eye on a local supply of skilled labour do not put a town as remote as Ely high on their list. Were it less remote, it would be a different story, as can be seen from the growth of other parts of the sub-region.

While manufacturing accounts for about a fifth of the area's employment, the service industries account for over half. Villages as well as the market town employ people in shops, schools, agricultural merchanting, garages and professional services. In Ely itself the important concentration of shops, hotels, public houses and restaurants, the cathedral and its associated ecclesiastical and tourist activities, King's School, and the RAF Hospital, all combine to generate a high proportion of the service employment. Cathedral restoration also helps at present in the construction sector.

As we have already said, the area has been marked by relatively high unemployment and low activity rates. Compared with national figures, registered unemployment has not been high in recent years. It has in fact been about the same as the average for East Anglia, which is slightly on the low side. But it has been very high compared with the rest of the sub-region, as we saw from Table 11.6.

The low activity rates are dramatic and when taken alongside the registered unemployment rates they add up to an important reduction in the proportion of all persons gainfully employed. In 1966 the urban district had the lowest female activity rate of all market towns in our sub-region. It was 37.4%, compared with an average for the municipal boroughs and urban districts in our region of 42.2% and an average for the whole sub-region, urban and rural, of 38.6%. In Ely Rural District it was down to 30.7%

All of this represented some improvement over the position in 1961, when, for example, the Rural District was slightly worse off at 29.2%. On the other hand, the sub-regional average was then much lower than five years later, standing at only 31.1%. The changes in the provision of jobs that have occurred in more recent years are to some extent reflected in the higher female activity rates for 1971, as shown in Table 11.8, which presents a comparison of these rates for 1951, 1961, 1966 and 1971. It also shows the male activity rates in these years, and reveals a similar if less dramatic story. Although female rates improved substantially in the sixties for most of that decade, as for the fifties, they were substantially below rates elsewhere.

Male rates declined more rapidly in the sixties than in the rest of the country. However it is explained, it is not surprising that the area was slow to grow, or that even now commuting is so important.

Tables 11.9 and 11.10 present some information about the pattern of commuting in 1951, 1961 and 1966. Information about 1971 is not yet available. The first point to be noted is that the urban district had fewer economically active residents in 1966 than in 1951, and provided employment for fewer persons. Both figures fell by over 300. An interesting second point is that over these years commuting both out of and into the urban district has grown by about 300 or so persons, and that over the whole period in-commuting has exceeded out-commuting by a roughly constant amount of about 700–800. One of the points that the table does not show, but which emerges from Table 11.11, is that the proportion of economically active residents of the urban district and rural district combined who work within that area has declined.

Table 11.8 Male and female activity rates: 1951, 1961, 1966, 1971

Area	Males				Females			
	1951	1961	1966	1971	1951	1961	1966	1971
Ely UD	88.4	86.0	82.4	78.4	29.4	29.2	37.4	42.0
Ely RD	87.6	88.7	84.3	83.5	23.8	29.3	30.7	37.6
All MB's and UD's in the Sub-Region, excluding Cambridge	86.9	84.8	86.4	N/A	30.2	31.3	42.2	N/A
All RD's in Sub-Region	87.4	87.5	86.4	83.8	23.8	28.0	34.3	38.2
England and Wales	87.5	86.2	84.0	81.7	34.9	37.7	42.3	43.7

Source: Census of Population

Table 11.9 Place of work of all economically active persons resident in Ely UD

		1951		1961		1966	
			%		%		%
Total residents economically active		4,676		4,340		4,360	
(i)	working locally in UD	4,261	91.1	3,730	85.9	3,660	83.9
(ii)	commuting out of UD	415	8.9	610	14.1	700	16.1
	viz						
	Cambridge MB	154	3.3	320	7.4	280	6.4
	Chesterton RD	33	0.7	50	1.2	80	1.8
	Newmarket RD	28	0.6	60	1.4	50	1.1
	Ely RD	127	2.7	80	1.8	140	3.2

Source: Census of Population 1951, 1961, 1966

Table 11.10 The place of residence of all persons working in Ely UD

		1951		1961		1966	
			%		%		%
Total persons working in UD		5,401		5,140		5,150	
(i)	resident locally in UD	4,261	78.9	3,730	72.6	3,660	71.1
(ii)	commuting into the UD	1,140	21.1	1,410	27.4	1,490	28.9
	viz						
	Ely RD	708	13.1	1,020	19.8	1,120	21.7
	Norfolk			50	1.0		
	Newmarket RD	265	4.9	200	3.9	130	2.5
	Cambridge MB	37	0.7				
	Chesterton RD					70	1.4

Source: Census of Population 1951, 1961, 1966

Table 11.11 Total persons economically active and working within Ely EEA

	1951		1966	
	Total econ. active	Working in Ely UD and RD	Total econ. active	Working in Ely UD and RD
Ely UD	4,676	4,388	4,360	3,800
Ely RD	6,304	5,880	6,220	5,100
Total EEA*	10,980	10,268	10,580	8,900

* Approximately

Source: Census of Population 1951, 1966

So has the absolute number. While Ely urban district has become more important than it was as a provider of jobs for residents of the rural district, the existence of jobs outside the EEA, and especially in or close to Cambridge, has become even more important for both the urban and rural residents. For example, the electrical industry in Cambridge provides special daily transport to bring women from Ely to its factories. What we cannot yet say is to what extent the number of people now living in Ely and working in Cambridge has been increased in recent years not by a search for jobs in the south, but by the migration of Cambridge workers to houses in the north. A strong move of this kind could eventually bring both benefits and harm to the area. We discuss it later.

Table 11.12 shows the numbers of houses constructed in Ely Urban District and in Ely Rural District each year since 1956. It reflects both the net emigration of the fifties, when, nevertheless, there was also a wish to have a new house, and the more recent tendency for the area to assume a residential role for people with jobs further south. In the urban district the division between public and private building has been identical to the national split, with the public sector accounting for just under half of the total achievement between 1956 and 1971. In the rural area, as in the sub-region as a whole, the private builder has been more important. Demolition rates have been marginally above those elsewhere in the region, possibly because a declining population has made it both easier and at times more necessary, but low compared with the national figure.

The structure of housing tenure is markedly different in Ely Urban District from that in Ely Rural District. It is also noticeably different, but not in the same way, from the sub-regional structure, and the national structure. Perhaps the first point to mention is that throughout this sub-region there is a high proportion of tenure that comes into the 'Other' category. The households living in these houses are neither owner-occupiers, nor tenants of furnished or unfurnished accommodation rented from local authorities or private landlords. Mostly they inhabit dwellings that go with their jobs, be they tied agricultural cottages, splendid ecclesiastical palaces, or common public houses. In the sub-region as a whole about one-eighth of the households were accommodated

Table 11.12 Housing construction: completions, demolitions and closures, 1956–72. Ely UD and RD

Year	Construction						Demolitions + closures						Net increase	
	Public		Private		Total		In clearance area		Elsewhere		Total			
	UD	RD	UD	RD	UD	RD	UD	RD	UD	RD	UD	RD	UD	RD
1956	39	51	139	20	178	71	–	–	–	–	–	–	178	71
1957	92	–	19	32	111	32	10	–	14	4	24	4	87	28
1958	32	18	11	18	43	36	–	–	5	13	5	13	38	23
1959	38	14	35	40	73	54	–	–	7	4	7	4	66	50
1960	22	43	19	23	41	66	–	–	16	12	16	12	25	54
1961	7	–	30	42	37	42	–	–	2	15	2	15	35	27
1962	–	18	39	46	39	64	–	–	10	18	10	18	29	46
1963	18	21	16	17	34	38	–	–	1	9	1	9	33	29
1964	94	24	22	36	116	60	–	–	9	12	9	12	107	48
1965	25	11	25	86	50	97	–	–	10	16	10	16	40	81
1966	7	70	24	95	31	165	–	–	20	17	20	17	11	148
1967	6	25	26	112	32	137	7	–	10	27	17	27	15	110
1968	2	41	33	113	35	154	–	–	15	11	15	11	20	143
1969	8	43	51	142	59	185	–	–	–	26	–	26	59	159
1970	29	–	97	78	126	78	–	–	–	12	–	12	126	66
1971	8	4	119	156	127	160	–	–	–	2	–	2	127	158
1972	35	–	8	178	43	178	–	–	–	5	–	5	43	173
1956–72	462	383	713	1,234	1,175	1,617	17	–	109	203	136	203	1,039	1,414

Source: DOE, Local Housing Statistics

Table 11.13 Private households with exclusive use of facilities: 1961, 1966, 1971

Area	Year	Total households	No. with exclusive use of facilities	% with exclusive use of facilities
Ely UD	1961	3,016	1,902	63.1
	1966	3,110	2,180	70.1
	1971	3,310	2,655	80.2
Ely RD	1961	4,667	2,567	55.0
	1966	4,760	3,170	66.6
	1971	5,350	4,455	83.3
Sub-Region	1961	106,401	68,556	62.9
	1966	121,260	89,240	73.6
	1971	138,205	119,205	86.1
GB	1961	16.2M	11.3M	69.4
	1966	16.9M	12.4M	72.9
	1971	N/A	N/A	N/A

Notes:
1961: cold water, hot water, fixed bath, WC
1966: hot water, fixed bath, inside WC
1971: hot water, fixed bath or shower, inside WC

Source: Census of Population 1961, 1966, 1971

in this way in the early sixties. It was marginally higher in Ely Rural District and higher still in the Urban District: but it was declining in both areas.

The other tenure that was more common in the early sixties in the Ely area than elsewhere in the sub-region or country as a whole was the local authority tenancy, which by 1966 accounted for a third of all tenures, compared with a substantially lower proportion elsewhere. Unfurnished privately rented accommodation, rapidly declining in importance was just slightly more common in the City of Ely than in the country as a whole, but in the rural district was very much less common. Privately rented furnished accommodation was scarce. The dramatic difference reflected by all this lies in the one proportion that we have not yet mentioned. In the early sixties fewer than one house in three was owner-occupied in Ely Urban District. In the rural district the proportion was higher, but still very much below the national ratio. It is, of course, growing but it continues to lag behind the national average, as does the sub-regional figure.

Table 11.13 shows that in terms of household facilities the area was not quite as fortunate as the rest of the sub-region in the early sixties, and compared even less well with the national average. Over-crowding was not a problem, as is clear from Table 11.14.

In recent years the pace of development has been faster than it was in the fifties and early sixties, and in September 1971 Cambridgeshire Country Council suggested various alternative future allocations of residential land in Ely because the land zoned for development in the Town Map, approved in 1964, was being used more rapidly than had been expected. Firmer recommendations have now been made, to cater for the growth in Ely's civilian population to the figure of 12,400 which is predicted for 1981. At the end of 1972 unimplemented approvals for residential development in the exchange area provided for 1,518 houses, of which 1,218 were to be built in the private sector.

Apart from Ely, the only significant shopping centre in the EEA is Littleport, which can supply not only most local food requirements but also various minor household durables and services. Elsewhere the villages have, on the whole, very small numbers of shops; and all are concerned mainly with selling convenience goods.

In Ely itself there is a strong shopping centre, housed largely in eighteenth and nineteenth century buildings in the heart of the historic town. There has been some modern development, but for the most part the conversion of old houses into shops, with varying degrees of aesthetic appeal, is the immediate impression created by the shopping streets. A

Table 11.14 Total private household population: average household size, normal occupancy

Area	Year	Total private household population	Total No. households	Average size of household	% persons living at over 1.5 pp room*
Ely UD	1961	9,002	3,016	2.98	3.0
	1966	9,110	3,110	2.93	N/A
	1971	9,165	3,295	2.78	0.8
Ely RD	1961	14,335	4,667	3.07	3.7
	1966	14,360	4,760	3.02	1.3
	1971	14,820	5,200	2.82	0.8
Sub-Region	1961	321,849	106,401	3.02	3.4
	1966	353,085	121,260	2.91	1.0
	1971	395,640	138,205	2.86	1.0
GB	1961	49.5M	16.2M	3.06	7.0
	1966	50.7M	16.9M	2.99	3.2
	1971	N/A	N/A	N/A	N/A

* A density of 1.5 persons per room is generally recognised as overcrowding. Definition of room changed in the 1971 Census, effectively increasing the number of rooms.

Source: Census of Population 1961, 1966, 1971

Table 11.15 Retail floorspace, 1967 – Ely town centre

Town Category	Sales sq. ft.	Storage sq. ft.	Total sq. ft.
Grocers and provision	13,700	13,680	27,380
Food (Other)	5,850	11,635	17,485
Confect. and newsagents	2,010	2,035	4,045
Total convenience	21,560	27,350	48,910
Clothing and footwear	20,680	13,565	34,245
Household goods, (including furniture and furnishings; radio and elect.; cycle and pram; ironmongery and hardware)	31,905	43,260	75,165
Other non-food (including booksellers and stationery; chemists and photography; jewellery, leather goods; sports, other non-food)	6,785	18,355	25,140
General stores (including department and variety)	11,390	5,530	16,920
Total durable	70,760	80,710	151,470
Grand total	92,320	108,060	200,380

Source: G. Eve Report, 1968

survey undertaken in the town centre in 1967 recorded 92.000 square feet of selling space and 108,000 square feet of storage space. Convenience shops accounted for just under a quarter of the total. Further detail is shown in Table 11.15.

Two sets of surveys undertaken by us in 1971 shed some light on the origins of the people who shop in Ely. On Thursday, October 28th and on Saturday, October 30th, we interviewed shoppers in the streets of Ely, using a sampling technique described in Chapter 23. On Thursday 332 persons were interviewed. Just over 42% of these (142) came from within the city, and a quarter of these were also working there. A fifth of these local residents shopped by car. The rest of the EEA supplied 107 shoppers, of whom 13 were workers in the area. Rather more than half came by car, and most of the rest by bus. Places outside the EEA but within ten miles provided 41 shoppers, about an eighth of the total, and two thirds of these were car-borne. An almost identical number came from more than ten miles away, but now only one in seven did not use a car.

The Saturday pattern requires separate scrutiny. The number interviewed was 389. The proportion living locally was lower, at under 37%, although once more a quarter of them also worked locally. This time the proportion of local residents using cars was as high as one third. The rest of the EEA supplied a slightly larger fraction of the total shoppers, and over two thirds of these came by car. Neighbouring places outside the EEA gave rise to 50 shoppers – rather more than one-eighth of the total and 43 of these arrived by car. More remote places provided an almost identical number (48) of whom 43, once more, used cars.

Thus the principal differences between Thursday and Saturday seem to be that on Saturday more people were likely to come from outside the city and that shoppers from all origins, including local shoppers, were more likely to use a car.

Another aspect of this emerges from Table 11.16 which shows quite clearly that people who came by car, bus or train were much more likely to be spending a lot of money than those who came by foot, and that this was especially true of those who came by car on Saturdays.

If we look at spending levels according to distance travelled we obtain another view. First we may look at local people who came by car on Thursday simply for shopping. There were 20 of them, and 6 were described as high spenders. This is, in fact, a lower proportion than that represented by the 34 high spenders amongst the 79 locals who travelled on foot. But 40 out of the 54 also travelled by car from the rest of the EEA in order to shop, 20 out of the 23 from a bit further afield, and 26 out of 35 from remoter areas fell into this category of high spending.

On Saturday, the overall proportion of high spenders is different but the broad pattern is very similar. Just over half of the car-using locals who were not at work spent a lot of money; but over 80% of the car-users from the rest of the EEA did so, as did an even higher fraction of those from its periphery. Once more, for the remote areas the proportion of high spenders fell, in this case 29 of the 42 shoppers came into this category.

Thus we find that on both Thursdays and Saturdays the proportions of shoppers by car who are high spenders increase as we move outwards from the shopping centre, until we reach more distant origins when they begin to decline. This is a pattern that is also to be observed for other market towns. Presumably it is because these more remote origins tend to be closer to the larger shopping towns, and their residents are more inclined to visit these if they intend to spend much money. The spending levels of all interviewed shoppers, independently of mode of travel or whether they were at work, are shown to tell a very similar story.

In 1961 the Census of Distribution put 52% of Ely's retail turnover as durables. A survey commissioned by the County Council in 1968 reported the existence of 200,380 square feet of shopping floorspace, of which 92,320 square feet were devoted to sales. About three-quarters of the total was allocated to shops selling mainly durable goods (including clothing). In the opinion of the consultants concerned, Ely's shopping floorspace was under-used, and it was estimated that the existing space could cope with the demands of a population much in excess of that predicted in the County Development Plan for 1981. Statistics published in 1972 by the Department of the Environment reveal that there were

Table 11.16 Spending levels of shoppers by day, mode and purpose

Day	Expenditure group	Mode and purpose									Total work	Total non-work
		Car			Bus/train			Foot/cycle				
		Work	Non-work	Total	Work	Non-work	Total	Work	Non-work	Total		
Thursday	Low	4	14	18	0	0	0	5	12	17	9	26
	Medium	6	26	32	3	14	17	10	37	47	19	77
	High	5	92	97	7	46	53	12	39	51	24	177
Saturday	Low	1	9	10	0	0	0	4	7	11	5	16
	Medium	5	35	40	2	15	17	7	30	37	14	80
	High	20	166	186	4	35	39	11	38	49	35	239

Source: Cambridge Sub-Region Study: Shopping Survey

143 premises classed as shops, restaurants and cafes, including banks, estate agents and so on, located in shopping areas. These had 216,000 square feet of space. Shops assessed for rates with living accommodation were excluded from the count.

We may now look at the shopping habits of people living in Ely, as revealed by the household survey conducted by us in 1971. Almost all of their spending on food was done locally, with less than 4% going elsewhere. About 72% of spending on minor items was also done locally, with a further 13% going to Cambridge. Major purchases were slightly more localised, with 77% of the expenditure being local and 11% going to Cambridge. These percentages for local spending are higher than the comparable ones for the other market towns in the sub-region. Ely is much more self-contained. We have had to take account of this in our predictions.

To some extent this 'self-containment' probably reflects the isolation of Ely, and of the surrounding villages. The road patterns are influenced by the existence of islands in the Fen, and by its drainage system. Often there are long detours between one village and another, affecting movement of all kinds and particularly noticeable when one thinks of access to doctors and schools. Several bus services operate, but the detours to which we have just referred put up their costs. About a quarter of those residents of Ely Urban District who work outside the city go to work by bus; and about a quarter of the people who travel into Ely to work come the same way. One of the supermarkets provides a free bus service to bring in shoppers from the villages.

In terms of longer distance communications Ely is served by main roads and railway lines. It lies on the main route of the A10 from London to Kings Lynn, and on the north-western route from Newmarket to Chatteris and beyond. These roads are not yet particularly overcrowded, but they are likely to become so by the end of the decade. In any case the volume and nature of the through traffic is quite incompatible with the quiet charm of this historic town. In June 1971 the Minister's announcement of a primary road network included Ely as a historic town meriting a traffic diversion scheme. By-passes have been proposed for both Ely and Littleport. Traffic within Ely also needs some reorganising.

The railway station is some distance from the centre of Ely. It seems likely that the local passenger services, which are grant aided, are still in existence partly because Ely is an important railway junction in the Eastern Region network between Peterborough, Kings Lynn, Norwich, London and Cambridge. It is also important for through trains from other parts of the country to the east coast ports. There are well-used freight yards.

One of the many appealing features of Ely is its river, which is part of an extensive network of waterways once used for commercial traffic. Now it is becoming increasingly important for boating and fishing, but it contributes also to the atmosphere of peace and natural beauty that is so welcome in this city.

The heart of the city has been designated as a conservation area under the 1967 Civic Amenities Act, and two documents published by The County Planning Department contain detailed analyses and suggestions for its sympathetic treatment. It could well become even more of an attraction to tourists than it is now, but the shortage of good hotel accommodation may impede this. One other possibility that also depends on improved hotel facilities is the development of Ely as an attractive resort for small conferences, meeting in the renovated Maltings.

Outside the city are other conservation areas. Little Downham, Witcham, Sutton, Haddenham, Wilburton and Stretham all have much that should be treasured, while a great deal of the area is officially classed as being of great landscape value. With the farming pattern of the Fens there is little opportunity to use the countryside for recreation, but parts of the original Fen are being conserved. The large expanse of the Ouse Washes is still subject to flooding. There are however substantial problems of wildlife conservation.

As we studied the sub-region it became apparent that the problems and possibilities associated with the Ely area are in many ways different from those of the other parts of the sub-region. It is, as we have said, isolated and largely self-contained. It has experienced a very appreciable emigration. There is little industry in the area. The terrain is difficult. Apart from the through traffic, it is a quiet, beautiful and historic town. It has its problems, but they need to be handled sensitively. If the town is to expand, and that is a matter on which there is further comment in a later chapter, some other problems arise. There are only two directions in which much growth could really take place. It could go north, stretching around the RAF hospital, extending the present perceived urban area into an otherwise rural context, which would require a very sensitively designed landscaping. Alternatively it could go to the west. In this case there would be considerable visual intrusion, if it has to be contained within the probable line of the proposed by-pass, as it would appear on the shallow but locally significant A142 ridge, and break into the ridge of the Downham Road. On these grounds, an eastern course for the by-pass would be preferable.

Chapter 12
The Newmarket area

Newmarket has the largest race course in the world, and is internationally famous for its breeding of race horses. It lies to the east of Cambridge and its employment exchange area, primarily in the County of Cambridgeshire and the Isle of Ely, but including parts of West Suffolk, defines the eastern extremes of our sub-region. Apart from Newmarket, whose population in 1971 was 13,040, the employment exchange area contains the locally important settlements of Soham, Burwell and Fordham. The northern part of the area is covered by fen deposits, giving rise to intensive agriculture. The southern part consists of undulating chalk uplands.

The total population of the employment exchange area in 1971 was 35,559. Figure 12.1 indicates its distribution and recent changes. Over a third of the people live in Newmarket urban district which has a population of 13,040. Soham, lying 8 miles north of Newmarket, has a population of 5,431, and Burwell, some 4 miles to the north-west, has 4,032 people living in it. These two settlements are in many ways typical of the larger fenland villages, having developed along droves and roadways and being characterised by sporadic linear building. The county development plan has selected them as particularly suitable for absorbing population growth. The other settlements are smaller, especially on the southern side of Newmarket. It should be noted that the population of 1,746 attributed to Cheveley and of 1,223 attributed to Woodditton is partly on the fringe of urban Newmarket rather than in the villages that give their names to these districts.

Over the last twenty years the population has grown by about 22.3% which exceeds the national rate, but is lower than the average rate of 34.4% for the sub-region. The main increases have been in Newmarket Urban District and Burwell, as is shown in Table 12.1. Moulton has also had a substantial increase.

Between 1951 and 1961, ten of the twenty three parishes in the EEA showed a loss of population. During the next decade thirteen declined, including nine of those that had declined in the fifties. To some extent this reflects the population distribution policy of the Cambridgeshire and Isle of Ely County Council which has aimed at promoting growth in the larger villages, such as Burwell, and restricting development in the smaller settlements to local needs. It also reflects the slow reduction in household size. The general picture is one of static or declining smaller villages, with growing larger villages.

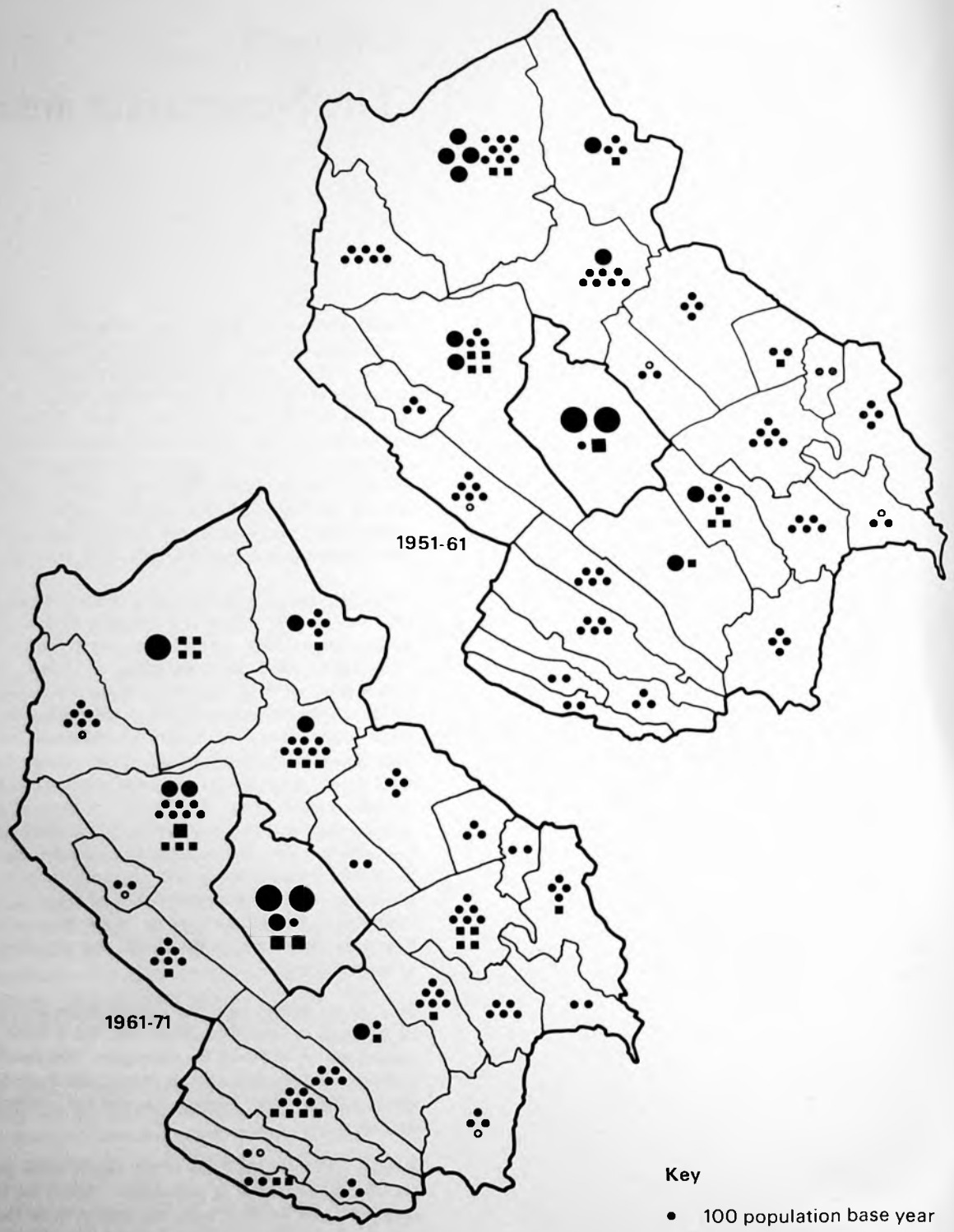


Figure 12.1 Newmarket: Population distribution and change; 1951-61, 1961-71

Table 12.1 Population changes, 1951–71

Area	Civilian population			Population growth %		
	1951	1961	1971	1951–61	1961–71	1951–71
Newmarket UD	10,060	11,060	13,040	9.9	17.9	29.6
Rest of EEA	19,030	20,030	22,519	5.2	12.4	18.3
Soham	4,865	5,077	5,430	4.4	7.0	11.6
Burwell	2,289	2,734	4,032	19.4	47.5	76.1
Fordham	1,705	1,709	1,969	0.2	15.2	15.5
Moulton	591	624	1,001	5.6	60.4	69.4
Total EEA	29,080	31,090	35,559	6.9	14.4	22.3
Sub-Region	286,816	317,273	385,353	10.6	21.5	34.4
East Anglia	–	–	–	7.4	12.9	21.2
Eng. and Wales	–	–	–	5.4	5.7	11.4

Sources:
Registrar General's Mid-Year Civilian Estimates
Census of Population
Local Population Estimates

Between 1951 and 1971 employment in the EEA rose from 8,255 to 11,233. The significance of this increase is seen when we look at it in relation to population. In 1951 employment in the area was just over a quarter of the resident population. In 1971 it was nearly a third, the percentage rising from 28 to 32. In the former year the female activity rates were 29.9 in the urban district and 22.6 in the rural district. But these rose to 42.9 and 37.3 respectively by 1971. For males the rates were 88.6 and 83.8 respectively in 1951. Twenty years later they were 84.4 and 83.6.

This change in employment levels arises out of an equally significant change in structure. Agriculture has declined, both absolutely and relatively. In 1951 it employed over a quarter of the work force. It remains an important industry, but now accounts for not much more than a tenth of the total employment, whereas manufacturing industry, which accounted for this fraction of all jobs in 1951 now employs nearly a third of the workers. Employment in services has risen by more than 1,000, but now represents a lower percentage of the total than it did. In 1951 it was 54%. Twenty years later it was only 47%.

Agricultural employment in the EEA is of a very special kind. Almost a third of those currently engaged in it work on stud farms. This has long been a very important industry in the Newmarket area, and for the last several years has had a fairly steady employment level of about 400. There is an even larger dependence on the racing industry than this figure suggests, since many of its activities are not classed as agricultural for statistical purposes. Race horse trainers, for example, employ about 750 persons in the Newmarket area. There are also many ancillary industries. Saddlers, veterinary surgeons and their staff, blacksmiths and horse transporters are examples. In all they employ about 270 people. This excludes less easily identified numbers employed in various jobs by the Jockey Club, sellers of bloodstock and others associated with racing. In all there are about 1,500 people directly dependent on this activity for their main employment. Fewer than a third of them are classed as 'agricultural'. It means that about an eighth of the people working in the EEA are in an industry that is traditional, specialist, and likely to continue for many decades without significant changes in the pattern and level of employment.

The remaining agricultural employment is of a less specialised kind, and is considered to some extent in Chapter 10. The area relies heavily on seasonal and casual workers. Its labour input per acre is high in sub-regional terms. Much of it is part-time or female, and it tends to consist of older people than in other parts of the sub-region.

The rise in manufacturing employment is associated principally with two firms that currently provide jobs for over 2,500 people in the area. The caravan manufacturing industry now employs over 1,000 people in two factories belonging to an organisation of local origin. The largest factory is on the outskirts of Newmarket, and slightly to the north, on the outskirts of Fordham, is another.

The other significant employer is the Pye of Cambridge group, which operates two establishments in the area, one making relays and solenoids and the other semi-conductors and micro-circuits. They employ a high proportion of women, and are one of the reasons for the fact that female employment in the sub-region has almost doubled in twenty years.

The area has a consistently low unemployment rate that exceeded 2% only twice in the last twenty years. Once was during the severe winter of 1963. The second occasion was in the recession around 1971.

The distribution of the main non-agricultural employment emphasises the importance of the urban district as a place of work. In 1966 the Sample Census showed that 1,220 residents of the urban district worked outside it, with Cambridge absorbing 420 of them. But the number of

workers in the urban district who lived outside it was 2,720. Two-thirds of these came from Newmarket Rural District. Tables 12.2 and 12.3 present some of the detail, and reveal the extent to which the importance of the Urban District as an employment centre has grown.

The other significant centres of employment are Burwell, Fordham and Soham. The first of these draws a very high proportion of its workers from its own parish. Newmarket Urban District and Soham are its other important sources of labour. Fordham also draws a high proportion of its workers from Soham, which appears to employ few people from outside its boundaries.

Table 12.4 shows the distribution of population and households. Two thirds of the area's population lives in the rural district, but the urban district has been growing at the faster proportional rate. In the rural area the provision of basic facilities in the houses has almost caught up with the position in the town, as can be seen from Table 12.5. In 1971 about 41% of the town dwellings were owner-occupied (compared with 30% in 1961). In the rural area 50% of the houses

Table 12.2 Place of work of all economically active persons resident in Newmarket: 1951, 1961, 1966

	1951		1961		1966	
	No.	% of total Ec. Active Residents	No.	% of total Ec. Active Residents	No.	% of total Ec. Active Residents
Total residents economically active	4,890	100	5,230	100	6,050	100
(i) working in the UD	4,118	84	4,440	85	4,830	80
(ii) Commuting out of UD	772	16	790	15	1,220	20
viz:						
Cambridge MB	206	27	210	26	420	34
Newmarket RD	154	20	280	35	340	28
Mildenhall RD	199	26	–		200	16

Source: Census of Population, 1951, 1961, 1966

Table 12.3 Place of residence of persons working in Newmarket UD

	1951		1961		1966	
Total persons working in UD	5,293		6,380		7,550	
(i) Resident locally in UD	4,118	78%	4,440	70%	4,830	64%
(ii) Commuting into UD	1,175	22%	1,940	30%	2,720	36%
from Newmarket RD	876		1,450		1,790	
Mildenhall RD	110		190		340	

Source: Census of Population, 1951, 1961, 1966

Table 12.4 Total private household population: average household size, nominal overcrowding; 1961, 1966, 1971

Area	Year	Total private household population	Total No. households	Average household size	% persons living at over 1.5 p.p.room*
Newmarket UD.	1961	10,559	3,644	3.00	2.4
	1966	11,420	4,190	2.73	Sample too small
	1971	12,360	4,560	2.71	0.5
Newmarket RD.	1961	20,729	7,055	2.96	2.1
	1966	22,360	7,660	2.92	1.1
	1971	23,420	8,305	2.82	0.6
Sub-Region	1961	321,849	106,401	3.02	3.4
	1966	353,085	123,330	2.86	1.0
	1971	395,540	138,205	2.86	1.0
G.B.	1961	49.5M	16.2M	3.06	7.0
	1966	50.7M	16.9M	2.99	3.2
	1971	N/A	N/A	N/A	

* A density of 1.5 persons per room is generally recognised as overcrowding. Definition of room changed in the 1971 Census, effectively increasing the no. of rooms.

Source: Census of Population 1961, 1966, 1971

Table 12.5 Private households with exclusive use of facilities: 1961, 1966, 1971

Area	Year	Total household	No. with exclusive use of facilities	% with exclusive use of facilities
Newmarket UD	1961	3,644	2,288	62.8
	1966	4,190	3,150	75.2
	1971	4,560	3,945	86.4
Newmarket RD	1961	7,055	3,994	57.0
	1966	7,660	5,630	73.5
	1971	8,415	7,170	85.2
Sub-Region	1961	106,401	68,556	62.9
	1966	121,260	89,240	73.6
	1971	138,205	119,005	86.1
GB	1961	16.2M	11.3M	69.4
	1966	16.9M	12.4M	72.9
	1971	N/A	N/A	N/A

Notes:
1961: cold water, hot water, fixed bath, w.c.
1966: hot water, fixed bath, inside w.c.
1971: hot water, fixed bath or shower, inside w.c.

Source: Census of Population 1961, 1966, 1971

Table 12.6 Housing construction: completions, demolitions and closures, 1956–72. Newmarket UD and RD

Year	Construction						Demolition + closures						Net increase	
	Public		Private		Total		In clearance area		Elsewhere		Total			
	UD	RD	UD	RD	UD	RD	UD	RD	UD	RD	UD	RD	UD	RD
1956	48	124	16	49	64	173	–	–	4	9	4	9	60	164
1957	50	36	26	59	76	95	–	–	5	50	5	50	71	45
1958	87	52	27	77	114	129	–	–	3	27	3	27	111	102
1959	117	58	23	77	140	135	29	–	14	38	43	38	97	97
1960	76	39	22	67	98	106	–	–	6	10	6	10	92	96
1961	13	68	37	66	50	134	–	–	6	98	6	98	44	36
1962	26	36	56	100	82	136	–	–	8	40	8	40	74	96
1963	31	33	49	141	80	174	17	–	13	31	30	31	50	143
1964	51	63	72	211	123	274	–	–	1	71	1	71	121	103
1965	51	62	38	244	89	306	–	–	–	55	–	55	89	251
1966	20	42	128	181	148	223	–	–	5	24	5	24	143	199
1967	239	47	92	200	331	247	5	–	1	28	6	28	325	219
1968	8	8	67	176	75	184	10	–	–	32	10	32	65	152
1969	16	10	80	112	96	122	–	–	–	21	–	21	96	101
1970	6	26	82	151	88	177	–	–	4	11	4	11	84	166
1971	–	5	132	162	132	167	–	–	2	7	2	7	130	160
1972	1	9	185	191	186	200	–	–	1	16	1	16	185	194
1956–72	840	718	1,132	2,264	1,972	2,982	61	–	73	568	134	568	1,838	1,414

Source: Department of the Environment: Local Housing Statistics

were in this category, (compared with 36% ten years earlier). In recent years there has been a marked swing away from local authority building in both urban and rural areas. The detail is in Table 12.6.

Newmarket is a busy minor shopping centre but not as busy as one might expect. In 1961 it had a total retail turnover of approximately £2.9 million. About 36% of this was from durable goods, and 64% from sale of convenience goods. The sample census of 1966 put sales at £3.7 million, of which 40% was of durables, and the rest of convenience goods. Thus in both of these years the town was appreciably more dependent on the sale of convenience goods than it would have been if it had an extensive dependent hinterland. As it is, it is squeezed between Cambridge and Bury St. Edmunds, with Ely and Haverhill defining the northern and southern limits of its catchment area even for convenience goods. It is also true that Burwell and Soham sell rather more durable goods than one would expect in places of this size, and undoubtedly attract some of the trade that would otherwise go to Newmarket.

Total sales in the Urban District increased by 11% during the fifties, after allowance for price changes, which was much the same as the percentage growth in East Anglia. In the early sixties the growth mentioned above represents an increase of only 2% when price changes are eliminated, compared with a growth of nearly 10% in East Anglia. To some extent this is explained by a lower population growth.

Some more information comes from our street surveys of the people spending in Newmarket. There the market is held on Tuesdays. Our first street interview therefore took place on October 26th, two days earlier than in some of the other market towns. On that day 233 shoppers were interviewed, and almost a quarter of them (54) were working in the town on that day. This is a higher proportion than we found in other market towns. Almost 60% of the interviewed people lived within the urban district. There were 139 of them, and the number of these local shoppers who were also at work was 32. This means that the percentage of shoppers who were also working was the same, (23%) for local residents as for others. Nine of the 32 who were working but lived locally came by car, while 20 of the 107 who were simply shopping also used cars.

The rest of the EEA contributed 75 shoppers, of whom 18 (being 24%) were also working. Fifteen of the workers and 33 of the 57 pure shoppers used cars. For those people living elsewhere in the EEA buses were an important form of transport, carrying 21 of the 57 interviewed shoppers. (On the other hand, out of a total of 54 shoppers who were also at work, living anywhere, only one came by bus.) Areas outside the EEA but within 10 miles of the urban district provided 13 of the interviewed shoppers. The four of these who were at work came by car. Six of the remaining 9 used cars and the other three came by bus. There were also six shoppers from further afield. None worked locally. Five came by car and one by bus.

On the Saturday many more shoppers were interviewed. There were 37 who were also working locally on that day, and 482 who were not, giving a total of 519. A very slightly lower percentage (57.4%) than that observed on the Tuesday lived locally. Of the 298 who did, 24 were working there, and 5 of those used cars. Most of the 274 local residents who were simply shopping came on foot, but 70 of them used cars. The rest of the EEA supplied 159 shoppers of whom 10 were working. In all, 118 people came by car, including 8 of the workers. Adjacent areas provided 25 shoppers, of whom 22 used cars; and the more remote places gave rise to 37 shoppers, of whom 30 used cars.

There are, therefore, some important differences between the Tuesday and Saturday patterns, quite apart from the lower proportion of workers on the Saturday. The proportion of local residents who used cars for shopping was much higher on Saturday, being over 25% compared with under 19% on Tuesday. The rest of the EEA supplied a lower percentage of the total on Saturday than on Tuesday, with, once more, a greater tendency to use cars. The most interesting difference is that on Saturday areas further than 10 miles from the urban district supplied 37 of the 519 interviewed shoppers (just over 7%) whereas on Tuesday only 6 shoppers out of 233 came from so far.

The tendency for car-users to be high spenders is evident here as in other areas, as can be seen from Table 12.7. Another side of this story is shown in Table 12.8 which looks at spending levels according to distance travelled. It is concerned only with people who were shopping but not at work. For spenders from within the EEA, Saturday was the

Table 12.7 Spending levels of shoppers by day, mode and purpose

Day	Expenditure group	Mode and purpose									Total work	Total non-work
		Car			Bus/train			Foot/cycle				
		Work	Non-work	Total	Work	Non-work	Total	Work	Non-work	Total		
Tuesday	Low	3	6	9	1	3	4	4	12	16	8	21
	Medium	10	21	31	1	10	11	7	37	44	18	68
	High	15	37	52	0	16	16	13	37	50	28	90
Saturday	Low	3	25	28	1	5	6	10	30	40	14	60
	Medium	7	53	60	0	9	9	6	56	62	13	118
	High	5	152	157	0	33	33	5	119	124	10	304

Source: Cambridge Sub-Region Study: Shopping Surveys

Table 12.8 Spending levels of non-working shoppers by origin

Spending	Tuesday				Saturday			
	Local	Rest of EEA	Nearby	Remote	Local	Rest of EEA	Nearby	Remote
Low	15	5	1	–	40	13	–	7
Medium	45	20	1	2	71	32	3	10
High	47	32	7	4	163	104	21	18

Source: CSRS Shopping Survey

high-spending day; and on both days the proportion of people living in the EEA but outside the urban district who were high spenders was appreciably greater than for local residents. That this was not simply a function of car usage is shown by a comparison of spending by people using cars but coming from different places. This has been done in Table 12.9. It shows that car users living elsewhere in the EEA were more likely to be high spenders than those living locally. The evidence that people living outside the EEA but within 10 miles spend even more is less convincing on Tuesday but impressive on Saturday. For people living even further afield the Tuesday sample is too small. On the Saturday there is a surprising number of low spenders, and even the ratio of medium spenders to high spenders is higher than it should be if our hypothesis that people who travel far are more likely to spend a lot is to be confirmed. It seems to be true only for people who do not come from far afield. This is a point that is examined further in our chapter on shopping, which also describes a household spending survey. This tells us that the households of Newmarket made 95% of their food purchases locally: but only 62% of their expenditure on minor goods and 53% on major goods went to local shops. These last two are low percentages for a market town. The main competing centre was Cambridge, which took 20% of Newmarket's expenditure on major goods and 14% of its spending on minor goods. Bury St. Edmunds took 8% of major spending and 3% of minor spending.

We also have data for spending by the households of Soham and Burwell. The former did 86% of their food spending locally. Over 40% of the remainder of the food was purchased in Ely. Just over 17% went to Newmarket. The rest was highly scattered. Burwell households depended more on Newmarket. Only 75% of their food was purchased locally, and over 40% of the remainder was bought in Newmarket. Cambridge took 30% of the non-local expenditure on food.

When we turn to other forms of spending the low attractions of Newmarket become even clearer. The residents of Soham did 55% of their minor expenditure locally, 12% in Ely and 11% in Cambridge. Newmarket took less than 2%. Purchase of major goods tells a similar story, with 36% of the purchases being made locally, 29% in Ely, 17% in Cambridge and only 4% in Newmarket.

The households of Burwell once again depend more on Newmarket. Only 24% of their minor goods are bought locally. Half as much again is purchased by them from shops in Cambridge, while 15% of their minor items are bought in Newmarket. For major purchases Cambridge dominates. Newmarket's main difference is that on race days it has a large volume of additional traffic and that at any time traffic on its roads, and its approach roads, may be interrupted or otherwise affected by the movement of very valuable horses. This is a town whose traffic problems are probably underestimated by the usual traffic counts and standard analyses, as anybody who is there, or who tries to get there, in the racing season will know. This is a matter which is more fully discussed in another chapter. The projected construction of the M11 from London to Stumps Cross, and the inevitable growth of east-west traffic as our east-coast ports develop, along with traffic movements due to developments at Maplin, make road improvements in this area especially urgent. A dual three-lane by-pass passing to the north-west of Newmarket is now under construction. Another by-pass is planned for Soham.

Newmarket lies on the subsidised railway line from Cambridge to Ipswich, whose continued existence is doubtful. There is also a line through Fordham and Soham to Ely. Some of the problems of rural bus services are considered elsewhere in this Report.

The area that we have been considering lies astride the border of West Suffolk and Cambridgeshire. In the local authority re-organisation the urban district will appear almost as an island in Cambridgeshire, linked to the rest of West Suffolk by a narrow isthmus. Existing planning commitments reflect the policies of both counties.

The most important commitment arises out of the Newmarket Charter. This is an agreement reached by the West Suffolk County Council, Newmarket Urban District Council and the Jockey Club to limit the population of the town itself to 16,800 and of its fringe (which is in Cambridgeshire) to 3,200, making a total of 20,000. Since the 1971 population of the town was 13,040 this means that the Charter will allow it to grow by only about 3,750 persons. They would require about 1,400 houses. In September 1971 there was land available for about 980 houses, mainly at Studlands Park. A further 50 or so acres could accommodate the

Table 12.9 Spending levels by non-working car users

Spending	Tuesday				Saturday			
	Local	Rest of EEA	Nearby	Remote	Local	Rest of EEA	Nearby	Remote
Low	2	3	1	–	10	8	–	7
Medium	7	11	1	2	15	27	3	6
High	11	19	4	3	45	75	18	16
Total	20	33	6	5	70	110	21	29

Source: CSRS Shopping Survey

remainder of the permitted population growth. This is less than the acreage of an area on the Phantom and Moreton Studs that is being considered for housing development. Outside the town the settlement pattern is being modified by planning policy. Cambridgeshire County Council has chosen Soham and Burwell as significant villages worthy of expansion. Existing commitments at Soham will accommodate a further 1,500 people.

The unique character of Newmarket has to be preserved. It seems likely that any major growth in its area would threaten it, for it is a town that, more than anything else, is built around the needs of one unique industry, whose scale of activity to a large extent dictates the scale of the town. On the other hand, it is a town that has its problems and its grumbles. One, which involves far greater consideration than can be examined in this Report, but which must be mentioned, is the way in which the very profitable and specialist farming in the area is able to operate with the same rating privileges as those accorded to other types of farming elsewhere.

Chapter 13

The Haverhill area

Like other towns in the sub-region, Haverhill is of ancient origin, having been mentioned in the Domesday Book, but in recent years it has grown into a modern town already about treble its size of twenty years ago. After 1945, Haverhill had a declining population, due partly to the general decline in agriculture and partly to the absence of jobs for young people leaving school. The two main local firms employed predominantly female labour. When London County Council announced its intentions to promote a decentralisation of population and industry, Haverhill was ready to benefit, and it was the first town to enter into an agreement with London under the 1952 Town Development Act. It did so in 1957. An account of the principal features of these agreements has appeared in Chapter 9.

Haverhill has both agency and nomination agreements with London. The initial agency agreement provided for the construction of about 1,500 dwellings and other buildings. The LCC, acting as agents for the Haverhill UDC, undertook the provision of the housing and associated development and the provision of roads and sewers on the industrial sites. Haverhill UDC provided the required extensions to the water supply and sewerage and sewage disposal systems whilst the statutory undertakers extended their services as appropriate. The LCC provided the initial financing of housing and industrial development. This was to be repaid by Haverhill as buildings and sites became let. Additional financial assistance in terms of loans and contributions to the costs of improving drainage and other facilities were made by the LCC, West Suffolk CC and the Ministry of Housing and Local Government. Haverhill still has around 400 houses to build under its agency agreement with the GLC.

More recently, in 1969, a nomination agreement was reached with the GLC. Under this method Haverhill has undertaken the organisation and financing of the development with fairly substantial financial assistance from the GLC in particular but also from central government. The GLC in return obtains the right to nominate tenancies in Haverhill. It is likely that any future agreements with the GLC will be of the nomination type.

Under both types of agreement the movement of workers and firms to the area are interdependent. Those wishing to move from the London area are channelled through the Industrial Selection Scheme. Vacancies that arise in local firms are initially advertised locally and it is only if they are not filled that they are referred to the Industrial Selection

Table 13.1 Total civilian population, 1951–1971

Haverhill EEA	Population		% Growth	Population	% Growth
	1951	1961	1951–61	1971	1961–71
Urban areas	4,110	5,610	36.5	12,470	122.3
Rural areas	13,560	13,350	-1.5	15,434	15.6
EEA total	17,670	18,960	7.3	27,904	47.1

Sources:
Registrar General's Mid-Year Civilian Estimates
Census of Population 1961
Local Population Estimates

Scheme or advertized nationally through Employment Exchanges.

Apart from Haverhill, the employment exchange area contains a scattered population. It lies to the south-west of Cambridge. Much of it has very high landscape value. Communications are poor. At present the EEA is divided between Cambridgeshire, Essex, and West Suffolk. Under the reorganisation of local government there will be no substantial change. Haverhill town will be part of the County of Suffolk.

The employment exchange area contained 17,670 persons in 1951. Fewer than a quarter of them (4,110) lived in the urban district. Ten years later, the rural population had declined by 200 persons, while the town had grown by 1,500 people. During the next ten years, the town more than doubled its size, reaching 12,470 in 1971, while rural areas added a few thousand, so that they still contained well over half of the EEA's total population. Details are shown in Tables 13.1 and 13.2.

Table 13.2 Civilian population: Urban/rural split

Haverhill EEA	1951	1961	1971
Urban area	23.3%	29.6%	44.7
Rural area	76.7%	70.4%	55.3
EEA Total	100.0%	100.0%	100.0%

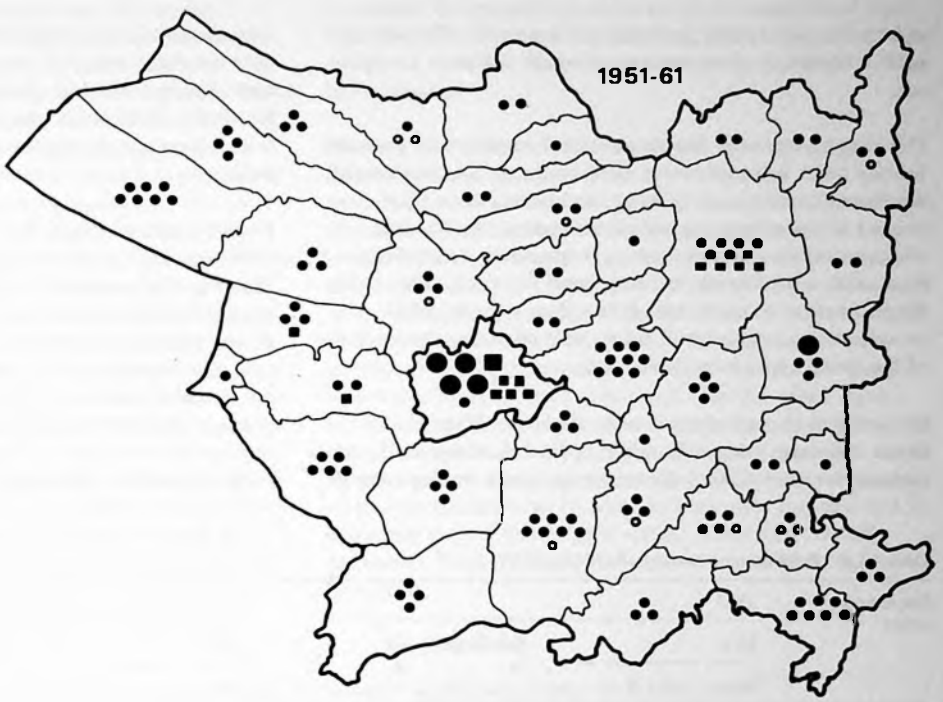
The geographical distribution of these changes is shown in Figure 13.1. Most of the parishes in the EEA have only one village, and a high proportion of them had populations of between 100 and 400 in 1971. While Clare has been the administrative centre of a large rural district for sometime, Great Yeldham, Kedington and Balsham have more recent events to explain their size. Between 1951 and 1971 Great Yeldham expanded by half through the development of an old-established engineering firm. Kedington more than doubled through the growth of the psychiatric hospital and some overspill from Haverhill. Balsham grew almost as rapidly mainly as a dormitory area of Cambridge. Apart from those places, most of the rural parishes have had only small percentage changes in population over the last twenty years. If Haverhill had not entered into the TDA agreement many of them might well have grown less slowly, or declined more rapidly because of the lack of jobs. On the other hand, Haverhill has also brought in population and helped the economy of rural areas. The meat packaging plant at Little Wratting, for example, would probably have had problems of labour supply if Haverhill had not grown. Probably only about 200 of the 7,500 total increase in the population of Haverhill during twenty years is strictly attributable to the natural increase of the indigenous population, while for Clare Rural District migration probably accounts for all but about 200 of the total growth of over 1,400.

Migration has affected age-structures in both the urban and the rural parts of the EEA. This is illustrated in Table 13.3

Table 13.3 Age structure: 1961, 1966, 1971: total enumerated population

Area	Year	Age group %									
		0–14		15–24		25–44		45–64		65+	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Haverhill UD	1961	12.7	12.3	5.2	6.2	14.0	14.0	11.7	12.0	4.6	7.2
	1966	16.5	13.4	6.9	6.9	13.6	14.7	10.7	9.0	3.0	5.5
	1971	16.9	15.9	6.2	7.1	14.7	14.2	8.1	8.5	3.3	5.0
Clare RD	1961	10.8	10.0	7.9	6.0	13.5	12.2	9.4	12.2	6.4	8.2
	1966	10.4	8.9	8.9	6.1	14.3	11.9	12.6	12.6	6.0	8.3
	1971	11.6	11.2	5.8	5.3	12.9	12.3	12.7	12.3	7.0	8.8
England and Wales	1961	11.7	11.2	6.7	6.5	13.1	13.0	12.3	13.5	4.6	7.3
	1966	11.8	11.2	7.3	6.9	12.5	12.4	12.1	13.1	4.6	7.6
	1971	12.2	11.6	7.4	7.1	12.3	12.0	11.7	12.5	5.0	8.0

Source: Census of Population



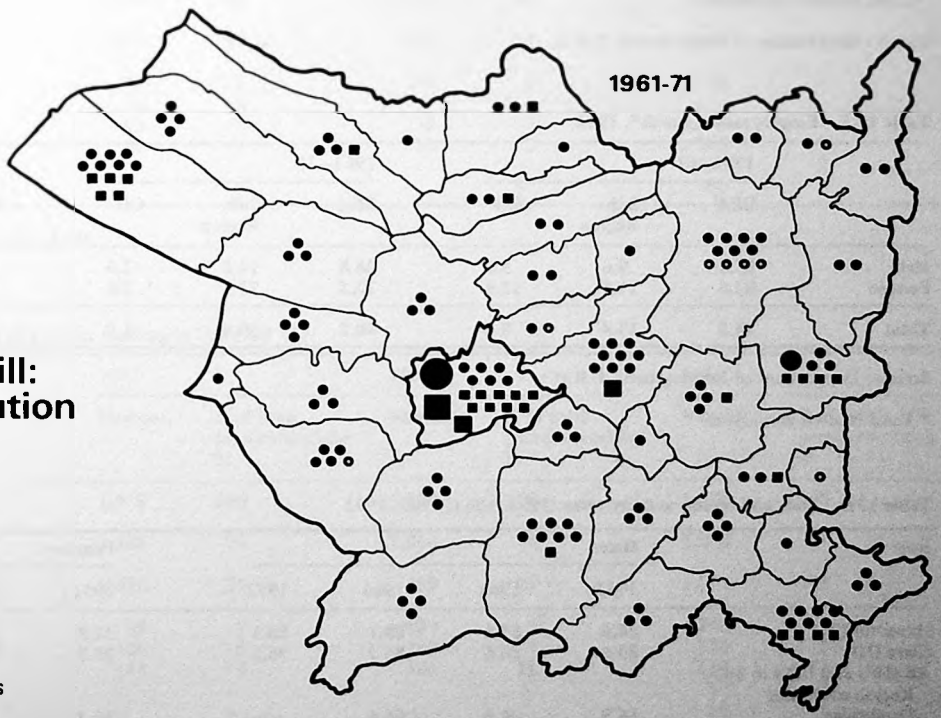


Figure 13.1 Haverhill: Population distribution and change; 1951-61, 1961-71

Key

- 100 population base year
- 1,000
- 5,000
- 100 decrease over 10 years
- 100 increase over 10 years
- 1,000
- 5,000

and by the population pyramids in Chapter 9. The importance in Haverhill of the younger element is clearly brought out.

This vast immigration has also affected employment patterns. Twenty years ago just over a third of the people working in the Haverhill EEA were farming, and just under a third worked in manufacturing industries, mainly textiles and clothing, with some rope making, engineering and milling. Now, with a total work force approaching three times as big, the proportion in agriculture is less than a tenth, while manufacturing engages well over a half of the workers. Some of the detail appears in Table 13.4.

Most of this change arises directly from the TDA scheme. Firms who have taken advantage of TDA facilities in Haverhill account for over 40% of the exchange area's employment in manufacturing, and commuters into Haverhill travel from a wide area spreading far beyond the EEA boundaries. As we have already indicated, there are also indirect employment benefits; and these are growing, partly because locally based firms buy larger quantities of their materials from local sources.

Female employment in the exchange area trebled between 1951 and 1971 while male employment more than doubled. The disparity between these rates is due entirely to the shift toward female employment in the sixties. Indeed, in the fifties, although employment grew rapidly in the exchange area, the balance between the sexes moved against females in the Haverhill area, even though in the Sub-Region as a whole it was moving in their favour, as can be seen from Table 13.5.

Table 13.6 shows the changes in activity rates.

Table 13.4 Employment structure*, 1951 and 1971

Employment sector	1951				1971				
	EEA		Sub-Region %	GB %	EEA		Sub-Region %	East Anglia %	GB %
	No.	%			No.	%			
Agriculture	1,157	35.6	17.8	3.8	739	8.8	6.5	7.3	1.6
Manufacturing	949	29.2	21.5	44.2	4,846	57.6	30.7	34.0	40.0
Construction	206	6.3	8.0	6.4	485	5.8	7.1	6.9	6.0
Services	938	28.9	52.7	45.6	2,253	26.8	55.6	51.6	52.1
Total	3,250	100.0	100.0	100.0	8,323	100.0	100.0	100.0	100.0

* Total insured employees

Source: Department of Employment, E.R.II

Table 13.5 Employment growth*, 1951

	1951–61			1961–71			1951–1971		
	EEA	Sub-Region	GB	EEA	Sub-Region	GB	EEA	Sub-Region	GB
Male	85.5	9.6	6.5	26.8	14.8	-2.6	135.3	25.8	3.7
Female	82.6	21.4	12.6	72.5	32.1	7.6	215.1	60.4	21.2
Total	84.7	13.4	8.6	40.2	20.8	1.0	158.9	36.9	9.7

Source: Department of Employment, E.R.II's

* Total insured employees

Table 13.6 Male and female activity rates: 1951, 1961, 1966, 1971

Area	Males				Females			
	1951	1961	1966	1971	1951	1961	1966	1971
Haverhill UD	84.6	87.4	89.1	88.1	32.8	30.7	42.5	48.1
Clare UD	83.4	80.6	85.2	76.5	20.7	26.4	33.5	34.5
All MB's and UD's in Sub-Region excluding Cambridge	86.9	84.8	86.4	n.a.	30.2	31.3	42.2	n.a.
All RD's in Sub-Region	87.4	87.5	86.4	83.8	23.8	28.0	34.3	38.2
England and Wales	87.5	86.2	84.0	81.7	34.9	37.7	42.3	43.7

Source: Census of Population

There is a low level of service employment, but we can expect the growth of Haverhill to lead to an increase in employment in shops and various other service trades fulfilling local requirements. Unemployment has recently tended to follow national trends. During the early 1960's Haverhill, Newmarket and Ely tended to have higher unemployment rates than the other EEA's. Since 1966 there has generally been an increase in the levels of unemployment in the sub-region and Haverhill has continued to be one of the areas where unemployment has been high (although generally below national levels). In October 1971 its rate was the highest in the sub-region at 3.7% compared with the national average 3.9%. Mainly because of the higher proportion employed in manufacturing, the area tends to be more susceptible to national economic trends than the sub-region as a whole. As other more stable sectors such as service and office employment expand, and a greater range of firms enter the employment market, this tendency will probably be damped. It is advantageous that there is not any great dependency on any one industry as a whole. Great Yeldham has a strong tie with a local engineering concern and certain other establishments are large employers.

In general the proportion of vacancies to unemployed has been favourable when compared with Ely and with Great Britain as a whole. Sometimes it has been higher even than in Cambridge.

We have already remarked that people travel from quite distant places to jobs in Haverhill. Tables 13.7 and 13.8 give more information about this journey to work and shows that Haverhill Urban District is very much a net importer of commuters. Through the fifties and sixties the relative importance of a commuting work force grew, while the percentage of local residents working within the town remained more or less constant. Much of this is to be attributed to the success of the TDA scheme in bringing to the town people who had already secured jobs there. On the other hand, some of these people have now left the town to become owner occupiers of houses in the more rural parishes. It has been estimated that rather more than half of the commuters to jobs in the town go to work in their own car; and this is especially true of better paid males. Some more detail appears in Table 13.9, derived from work by Mr. M. J. Moseley.

Table 13.7 Place of work of all economically active persons resident in Haverhill UD employment centre: 1951, 1961, 1966

Area	1951		1961		1966	
	Number	% of total Ec.act.residents	Number	% of total Ec.act.residents	Number	% of total Ec.act.residents
Total residents economically active	1,841	100	2,350	100	4,000	100
(i) Working Locally in	1,568	85	2,060	88	3,380	85
(ii) Commuting out of	373	15	290	12	620	15
viz						
Cambridge MB	63	3	70	3	80	2
Chesterton RD	40	2	–	–	–	–
Halstead RD	43	2	70	3	50	1
Clare RD	60	3	60	3	260	7
GLC	–	–	–	–	60	2
Bury St. Edmunds	–	–	–	–	60	2

Source: Census of Population 1951, 1961, 1966

Table 13.8 The place of residence of all persons working in Haverhill UD

Area	1951		1961		1966	
	Number	% of total persons working in	Number	% of total persons working in	Number	% of total persons working in
Total persons working in UD	1,978	100	2,820	100	5,050	100
(i) resident locally in UD	1,568	79	2,060	73	3,380	67
(ii) commuting into the UD	410	21	760	27	1,670	33
viz						
South Cambridgeshire RD	68	3	150	5	240	5
Halstead RD	124	6	200	7	270	5
Clare RD	183	9	300	11	610	12
S. Walden RD	–	–	–	–	50	1
Bury St. Edmunds	–	–	–	–	50	1
Thingoe RD	–	–	–	–	60	1

Source: Census of Population 1951, 1961, 1966

Table 13.9 Best estimate of journey to work mode of transport of commuters to Haverhill, 1971 (from M. J. Moseley – Leverhulme Research Project)

Mode	No.	%
Firms bus	125	16.0
Public bus	98	12.6
Own car	407	51.1
Friend's car*	81	10.4
Moped/M. cycle	38	4.8
Bicycle	19	2.4
Foot	5	0.7
Goods vehicle	7	0.9
Total	780	100.0

*Probable over-estimate due to method of allocating categories

One of the problems of an expanding town is that it has to try to strike a balance between not having too many empty new houses on its hands and not having too few. Too many will lead not only to accusations of wastefully premature or excessive expenditure, but also to assertions that, despite the availability of houses, firms seem to be slow in going there, and so 'there must be something wrong'. Too few will mean that firms who contemplate moving to the town will chalk against it the fact that they may have to wait before there are enough houses for all of their workers.

If this is kept in mind, the story of house-building in Haverhill Urban District is much as one would expect. The first overspill firms and families arrived in 1959. The last four years of the fifties saw the construction of only 300 houses in Haverhill; but in the first four years of the sixties this almost doubled, and by the end of the decade a total of almost 2,500 houses had been built in ten years. As Tables 13.10 and 13.11 show over 80% of this building has been done by the public sector. The existing development plan provides for the completion of 4,500 dwellings for letting by about 1977, which leaves rather fewer than 2,000 yet to be erected. The cautious pessimism associated with an apparently high surplus of empty houses in 1972 has now given way to greater confidence as another new firm has agreed to arrive and to provide occupants for them.

Table 13.10 Housing completions, demolitions – closures 1956–1972 sector proportions

Area	Completions	% Public sector	% Private sector	Total demolished or closed	Demolished as % of total built
Haverhill UD	3,397	80.8	19.2	161	4.7
Clare RD	1,334	22.1	77.9	151	11.3
Sub-Region	62,724	35.9	64.1	6,932	11.1
Great Britain (000's)	5,377.6	47.4	52.6	1,208.6	22.5

Sources: Department of Environment: Housing Returns; Local Housing Statistics

Table 13.11 Housing construction: completions, demolitions and closures, 1956–72: Haverhill UD, Clare RD

Year	Construction						Demolitions and closures						Net increase	
	Public		Private		Total		In clearance area		Elsewhere		Total			
	UD	RD	UD	RD	UD	RD	UD	RD	UD	RD	UD	RD	UD	RD
1956	58	(3)	2	(2)	60	(5)	–	(–)	1	(16)	1	(16)	59	(–11)
1957	42	(48)	1	(10)	43	(58)	–	(–)	27	(6)	27	(6)	16	(52)
1958	72	(9)	–	(8)	72	(17)	–	(–)	67	(51)	67	(51)	10	(–34)
1959	147	(–)	10	(7)	157	(7)	–	(–)	23	(14)	23	(14)	134	(–7)
1960	33	(27)	26	(14)	59	(41)	12	(–)	16	(19)	28	(19)	31	(22)
1961	169	(9)	61	(17)	230	(26)	–	(–)	1	(15)	1	(15)	229	(11)
1962	122	(44)	42	(15)	164	(59)	–	(–)	9	(6)	9	(6)	155	(53)
1963	121	(15)	1	(24)	122	(39)	–	(–)	–	(2)	–	(2)	122	(37)
1964	179	(30)	17	(79)	196	(109)	–	(–)	4	(2)	4	(2)	192	(107)
1965	407	(16)	44	(186)	451	(202)	–	(–)	–	(–)	–	(–)	451	(202)
1966	326	(15)	111	(98)	437	(113)	–	(–)	–	(6)	–	(6)	437	(107)
1967	124	(34)	59	(96)	283	(130)	–	(–)	1	(5)	1	(5)	282	(125)
1968	302	(14)	43	(80)	345	(94)	–	(–)	–	(4)	–	(4)	345	(90)
1969	198	(1)	52	(78)	250	(79)	–	(–)	–	(4)	–	(4)	250	(75)
1970	203	(17)	46	(108)	249	(125)	–	(–)	–	(1)	–	(1)	249	(124)
1971	239	(3)	70	(108)	309	(111)	–	(–)	2	(–)	2	(–)	307	(111)
1972	2	(13)	58	(109)	60	(122)	–	(–)	1	(–)	1	(–)	59	(122)
Total	2,744	(295)	653	(1,039)	3,397	(1,334)	12	(–)	149	(151)	161	(151)	3,236	(1,183)

Source: Dept. of Environment: Local Housing Statistics

Table 13.12 gives information about the existence of household facilities in Haverhill UD and Clare RD. In both areas there has been a marked improvement, associated with new building. In the town, household size increased in the early sixties, while in the country it declined, probably in reflection of the age structure patterns. In the rural district house building has been mainly private sector.

It is difficult to provide a precise comparison of shopping in Haverhill with that in other market towns. There are three reasons for this. At the commencement of the fifties, this was still a very small town, yet the largest settlement in quite an extensive area. It could not be expected to have a shopping structure similar to that of a larger market town; yet the villages round about were less accessible to these other places than were, say, the residents of Royston to useful shopping centres. A second reason is that it is a rapidly developing town, which facilitates comparison with Royston and St. Neots, but not with Ely or Newmarket. A third, and important reason, is that Haverhill has been designed on modern principles with extensive provision for convenience goods shopping distributed between the housing estates in a number of district centres, leaving the town centre with an unusually high proportion of its floorspace devoted to the sale of durable goods, and thereby tending to preserve something of the pattern associated with its structure in the early fifties. In the 1961 Census of Distribution the shops of the Urban District are recorded as having had a turnover of £1.4 million of which just over half was expenditure on convenience goods. In 1966 turnover was put at £2.9 million.

Rating statistics attributed 130,000 square feet of floor space to shops in the town in 1967. Data from West Suffolk County Council indicate 55,000 square feet of total retail floorspace in the town centre in 1965.

Street surveys were undertaken in Haverhill on Friday, November 5th, 1971, and on the following day. On the Friday 277 shoppers were interviewed. A quarter of them were also working in the town that day. A total of 75 arrived by car (of whom 20 were working) and 27 came by bus. About 70% of the interviewed shoppers lived within the town; and a quarter of these worked there. Only 20 of the 199 local residents included in the interview were using cars.

There were 73 people, just over a quarter of the total, from the rest of the EEA. A fifth of these worked in the town, and those who did came almost entirely by car. The remaining 59 persons from the Outer EEA depended on cars about twice as much as on buses. Only three of them came on foot or cycle. It is significant that there were only two people from outside the EEA but within ten miles, and neither of these worked in the town. Places further afield gave rise to three interviewed shoppers. They were all in Haverhill in order to work. They came from Bury St. Edmunds, Great Shelford and Newmarket.

The Saturday survey was slightly larger, with 290 interviews. This time the fraction at work was lower (about 18%), and over a third (104 persons) came by car, with only 16 arriving by bus. Almost three quarters of the shoppers lived within the town. Cars were used by 39 of these 214 local residents.

The rest of the EEA provided 61 interviewed shoppers, of whom 5 were at work. These five, and 48 of the remaining 56 shoppers, used cars. Other areas within ten miles gave rise to 10 shoppers, and areas further afield to another 5. Twelve of these fifteen people came by car. Only one worked in the town.

The story told by these statistics is one of a shopping centre that has a very restricted hinterland that expands only slightly on Saturday, when the small contribution from outlying areas plus the greater availability of cars for shopping by people within the EEA still fails to make the car the

Table 13.12 Private households with exclusive use of facilities: 1961, 1966, 1971

Area	Year	Total households	No. with exclusive use of facilities	% with exclusive use of facilities
Haverhill UD	1961	1,838	1,210	65.8
	1966	2,820	2,300	81.6
	1971	3,860	3,565	92.4
Clare RD	1961	2,762	1,463	53.0
	1966	3,170	2,460	77.6
	1971	3,355	2,935	87.2
Sub-Region	1961	106,401	68,556	62.9
	1966	121,260	89,240	73.6
	1971	138,205	119,005	86.1
GB	1961	16.2M	13.3M	69.4
	1966	16.9M	12.4M	72.9
	1971	Fig. not available		

Notes
1961: cold water, hot water, fixed bath, w.c.
1966: hot water, fixed bath, inside w.c.
1971: hot water, fixed bath or shower, inside w.c.

Source: Census of Population 1961, 1966, 1971

Table 13.13 Modal split of shoppers in Haverhill, Royston and Ely

	Percentage modal split of shoppers					
	Market day			Saturday		
Mode	Haverhill	Royston	Ely	Haverhill	Royston	Ely
Car-users	27%	44%	44%	36%	54%	60%
Bus-users	10%	11%	20%	6%	9%	13%
Foot	61%	42%	31%	54%	36%	24%
All modes	100%	100%	100%	100%	100%	100%

Source: CSRS Shopping Survey

main mode of transport. Table 13.13 compares the modal split with that in Royston and Ely.

Our survey of the spending patterns of residents of Haverhill showed that they bought 95% of their food locally. They also made just under two-thirds of their minor purchases and of their major purchases in local shops. The percentage distribution is shown in Table 13.14. The importance of Cambridge as the principal spending centre outside Haverhill, and the fact that mail order is more important to its residents than are the shopping facilities of any other single place, stand out clearly.

Table 13.14 Percentage distribution of household non-food expenditure by residents of Haverhill

Place of spending	Major items	Minor items
Haverhill	64	63
Cambridge	14	13
Bury St. Edmunds	5	4
Other places	11	15
Mail Order	6	5

Source: CSRS Shopping Survey

A household survey was also undertaken in Linton. This was the only other settlement out of those included in our survey that attributed any of its spending to Haverhill. It is a small place with few shops, about 7½ miles from Haverhill, 6½ miles from Saffron Walden and 11½ miles from Cambridge. Its residents did only 70% of their food shopping locally. A third of the rest went to Cambridge, while Haverhill took only about 3% of their spending on food. Saffron Walden, not appreciably nearer, took about 5%. Only 13% of its minor purchases were made locally. Half of its spending in this category went to Cambridge, and an eighth of it to Saffron Walden. Haverhill took only 3% compared with 5% to mail order. Even a smaller fraction (3%) of major expenditure was local. Cambridge took 62% of it, and Saffron Walden 12%. Haverhill and mail order each took 6%. If the purchasing pattern of the residents of Linton is a guide, Haverhill shops face substantial competition from the older established and larger centre in Saffron Walden. And we can expect the growth of Haverhill's population to increase trade in both towns, as well as in Cambridge.

Haverhill no longer has railway services, which places it at a disadvantage to Saffron Walden, Royston and St. Neots as a commuter's town. There is no dual carriageway within the EEA, although the A604, linking the town to the coast at Harwich is due to be raised to this standard shortly. By-passes to Linton and Abington exist. The road between these two villages is shortly to become dual carriageway, and the route from the A11 to Cambridge is also to be improved. The M11 motorway will improve access to the south, and may generate sufficient traffic to expedite improvement of the A604 of Haverhill.

The importance of cars in the journey to work has already been mentioned, and we have also seen something about their importance to people shopping in Haverhill. In 1970 West Suffolk County Council conducted a survey that sheds light on the shopping travel patterns of residents of Haverhill. This suggests that only about one shopping trip in seven is made by bus; that about a quarter of the residents visit Cambridge at least once a month; and a fifth go to Bury St. Edmunds at least once a month.

On the whole we can expect the bus services to decline unless there is a positive policy towards improving them. On the other hand, the growth of Haverhill can help to make them viable. At present several firms in the area provide their own bus transport for employees. Public services link Haverhill and Cambridge, Saffron Walden, Thurlow and Halstead. To reach Newmarket or Bury St. Edmunds one has to change bus.

Much of this area is of outstanding landscape value. West Wratting, Clare, Withersfield, Stoke by Clare, Great Wratting, Great Thurlow, Little Thurlow, Denston, Steeple Bumpstead and Birdbrook are all endowed with architectural, historical or other environmental attractions, and several are the subject of conservation orders. Many of the villages show signs of depopulation, but an inflow of commuters has begun to reverse the change. Some could grow appreciably without detriment to their character, but it is difficult to see how employment could be attracted to them. Haverhill itself seems destined to grow. In 1965 the West Suffolk County Council identified 130 areas as suitable for residential development in Clare Urban District. Essex County Council envisaged a population increase of about 6,000 for Halstead Rural District, of which about 2,000 would be in the Employment Exchange Area. The Cambridgeshire parishes contained in the EEA have a growth commitment of about 700 people. If present trends continue there could well be a demand for

private housing around Haverhill from migrants wishing to become owner-occupiers, while the villages in the west could well become commuter villages for Cambridge.

A town that trebles its size in twenty years has achieved a great deal, and overcome more problems than it has created. Despite its obvious weaknesses it has much to its credit. It is, for example, the only town in the sub-region that yet has a purpose-built sports hall. Given determination and encouragement in the next five years or so, it can develop into a more self-reliant town that will also provide an increasing range of services for the villages around it.

Perhaps its biggest problem is that its hinterland lies in three counties. There is a great deal to be said for local authority boundaries being more firmly related to those of employment exchange areas, which reflect fairly closely many of the economic and social watersheds.

Chapter 14

The Saffron Walden area

Saffron Walden is one of the most beautiful towns in England. It lies in a hollow surrounded by extensive areas of woodland and gently undulating countryside; and its centre still retains a mediaeval street pattern with a rich inheritance of ancient buildings. The market established there in 1141 continues to exist. Despite some sad lapses, its quaint streets have in most cases been judiciously adapted to the shopping requirements of a modern growing town, serving both its agricultural and rural hinterland and the needs of commuters. London, to which it has good rail access from nearby Audley End, is 42 miles away by road. The Employment Exchange Area, lying entirely within the administrative county of Essex, contains about 18,000 persons, which is about 5% of the population of the Cambridge Sub-Region. Rather more than half of these people live in the municipal borough, while the rest live in small villages and isolated hamlets.

Figure 14.1 shows the distribution of the area's population in the census years of 1951 and 1971. During these twenty years the number of people living in the area increased by 26%, which is lower than the rate of growth for the rest of the Cambridge Sub-Region, but still double that witnessed in the country as a whole. In some of the rural districts there was a fall in population, while in others (notably those along the main north-south access routes through Saffron Walden) the population increased. On balance the rural population of employment exchange area very slightly increased, while the population of the municipal borough rose from 7,190 to 10,190. Some of the detail is shown in Tables 14.1 and 14.2.

Most of the growth has arisen out of migration. Indeed, in percentage terms the contribution of migration to the growth of Saffron Walden is higher than it is in the overspill towns. In both the fifties and the sixties, over eighty percent of the population change was due to new settlement, as is indicated in Table 14.3. We have already noted the pattern of growth along the A11 main road and the railway line from Cambridge to London, and there is no doubt that it is the combination of high accessibility to London with an attractive environment that has led to it. In the early sixties the expansion of Saffron Walden was very noticeable, with an increase in population from 8,010 in 1961 to an estimated 9,370 five years later. In absolute terms an increase of 1,260 people may not seem to be large, but for Saffron Walden it represented a growth of about 17%, and it brought some problems. The

Figure 14.1 Saffron Walden: Population distribution and change; 1951-61, 1961-71

Key

- 100 population base year
- 1,000
- 5,000
- 100 decrease over 10 years
- 100 increase over 10 years
- 1,000
- 5,000

Table 14.1 Total civilian population, 1951–1971

Saffron Walden EEA	Population 1951	1961	% Growth 1951–61	Population 1966	1971	% Growth 1961–71	1961–66	1966–71
Urban Areas (MB)	7,190	8,010	+11.4	9,370	10,190	+27.2	+17.0	+8.8
Rural Areas (ps)	7,269	7,527	+3.5	7,975	8,072	+7.2	+6.0	+1.2
EEA Total	14,459	15,537	+7.5	17,345	18,262	+17.5	+11.6	+5.3

Sources:
Registrar General's Mid-Year Civilian Estimates
Census of Population 1961
Local Population Estimates

Table 14.2 Population changes, 1951–71

EEA	% Growth 1951–1961	% Growth 1961–1971	% Growth 1951–1971
EEA	7.5	17.5	26.3
Sub-Region	10.6	21.5	34.4
East Anglia	7.4	12.9	21.2
England and Wales	5.4	5.7	11.4

Sources:
Registrar General's Mid-Year Civilian Estimates
Census of Population
Local Population Estimates

Table 14.3 Natural changes and migration: civilian population

Area	Components of change	1951–1961	1961–1971
Saffron Walden MB	Natural	139	381
	Migration	690	1,799
	Total	829	2,175
	Migration as % total	83.2	82.7
Saffron Walden RD	Natural	775	1,013
	Migration	227	2,007
	Total	1,002	3,020
	Migration as % total	22.7	66.5
East Anglia	Natural	64,636	83,910
	Migration	38,121	120,520
	Total	102,757	204,430
	Migration as % total	37.1	58.9

Source: RG Estimates

most important in the short-term was that the local sewage disposal facilities became inadequate, and in the later part of the decade the rate of growth had to be severely restricted. The pressure for growth remains, and we shall consider it further when we turn to housing.

Much of the population growth has been due to an influx of commuters. This has affected the character of employment in the exchange area. So has the severe restriction on growth to which we have just referred. Like most areas that were once dominated by agriculture, it has seen a shift from the land to the factory in recent years. But in addition to this the provision of local service employment, designed partly to serve commuters, has increased, while the low rate of house-building has led to reduced employment in construction. The story is summarised in Table 14.4.

Employment in manufacturing has doubled over the period of twenty years; while in agriculture it has almost halved. Only one employee in eight now works on the land, compared with one in four in 1951. Yet, contrasted with the rest of the sub-region, and the whole of East Anglia, the Saffron Walden area stands out as agricultural. This is a part of the country where cereal production is important, with over 70% of the crops and grass acreage under wheat, barley and oats, contributing not only to our agricultural output but also to the highly attractive landscape, which also benefits from the golden crops of mustard.

Manufacturing employment is located mainly in the municipal borough, although the neighbouring areas of Great Chesterford and Little Chesterford to the north, and Newport to the south have a share. Within Saffron Walden itself lies the

Table 14.4 Employment structure – Saffron Walden, 1951 and 1971 (total insured employees)

Employment Sector	1951 EEA No.	%	Sub-Region %	GB %	1971 EEA No.	%	Sub-Region %	East Anglia %	GB %
Agriculture	1,285	25.3	17.8	3.8	734	12.5	6.5	7.3	1.6
Manufacturing	760	14.9	21.5	44.2	1,559	26.5	30.7	34.0	40.0
Construction	456	9.0	8.0	6.4	407	6.9	7.1	6.9	6.0
Services	2,581	50.8	52.7	45.6	3,187	54.6	55.6	51.6	52.1
Total	5,082	100.0	100.0	100.0	5,890	100.0	100.0	100.0	100.0

Source: Department of Employment, E.R.II

Shire Hall industrial estate, established in 1959/60 to provide employment for up to 800 people in light industry, in thirty factory units. To date 28 firms have taken up accommodation there, employing people in such diverse activities as egg-packing, cosmetics manufacture, electronics and printing.

The growth in service employment has also been important. Some of it arises in miscellaneous services and distribution, and is more or less as one would expect on the basis of population growth, but the very marked increase in employment in professional and scientific services cannot be so easily explained. Part of it is due to the expansion of Fisons at Chesterfield Park, but it also seems to reflect a sub-regional, and even national, trend. Once more, the attractiveness of Saffron Walden, both locationally and environmentally, may well have something to do with it.

While employment in agriculture and the food industries has declined, total employment has increased by about 16% over a period of twenty years. The rate of growth in the number of jobs was twice as fast in the sixties than it had been in the fifties, but in both decades it was substantially lower than in the sub-region as a whole. Almost all of it has resulted from the provision of additional jobs for females. The growth in male employment over twenty years was about 3% as is shown in Table 14.5.

Here there are two phenomena. One is to some extent explained by the fact that like the sub-region as a whole, the area has had very low female activity rates in the past. In 1961 the sub-region's rate was only 31.1% compared with a rate of 37.7% for England and Wales. At that time Saffron Walden municipal borough was very slightly better off than the rest of the sub-region, while the rural district was worse off. The detail appears in Table 14.6. Five years later the rate for Saffron Walden (41.7%) was almost up to the national rate of 42.3%, compared with a sub-regional rate of 38.6%. In both the municipal borough and the rural district, female activity rates increased by about a third over a period of five years. Since 1966 the activity rate in the borough has been static, even though it has risen nationally. In the rural district it has risen, in line with the average rate for the rural areas of the sub-region, but it remains below the national average. The largest increase has been in the professional services. We must, however, be careful not to confuse activity rates with information about employment. While the EEA data on employment refers (more or less) to jobs existing within the area, activity rates are obtained by considering the proportion of residents in an area who have a job anywhere. A high female activity rate may be due to an inflow of women who live in the area but work outside it. We should not place a great deal of reliance on the 1966 sample census data for small areas, but they seem to indicate that the highest female activity rates were along the main lines of communication.

It seems likely that the low rate that existed around 1961 made the area more attractive to potential employers of females; and that since then the activity rate has risen partly because of the creation of new jobs and partly through commuting.

The second phenomenon, of a very small growth in male employment during twenty years of rapid population growth, also has its explanation in commuting. But we have to distinguish between people living in the area who seek jobs outside it, and those already with jobs elsewhere who decide to retain them but to move into this 'highly desirable residential area'. Although statistical evidence is difficult to

Table 14.5 Employment growth* 1951–1971 (%)

	1951–61			1961–71			1951–71		
	EEA	Sub-Region	GB	EEA	Sub-Region	GB	EEA	Sub-Region	GB
Male	0.9	9.6	6.5	2.6	14.8	−2.6	3.5	25.8	3.7
Female	14.0	21.4	12.6	26.7	32.1	7.6	44.4	60.4	21.2
Total	4.9	13.4	8.6	10.5	20.8	1.0	15.9	36.9	9.7

*Total insured employees

Source: Department of Employment, E.R.II

Table 14.6 Male and female activity rates: 1951, 1961, 1966, 1971

	Males				Females			
	1951	1961	1966	1971	1951	1961	1966	1971
Saffron Walden MB	84.5	85.8	81.4	81.1	28.0	31.7	41.7	41.6
Saffron Walden RD	85.8	87.9	85.9	83.5	24.2	27.4	36.0	38.5
All MB's and UD's in sub-region excluding Cambridge	86.9	84.8	86.4	n.a.	30.2	31.3	42.2	n.a.
All RD's in the sub-region	87.4	87.5	86.4	83.8	23.8	28.0	34.3	38.2
England and Wales	87.5	86.2	84.0	81.7	34.9	37.7	42.3	43.7

Source: Census of Population

analyse in this way, it seems to be fairly obvious that a large part of Saffron Walden's growth of population has been due to the immigration of people who already have jobs. With over 80% of the population growth due to immigration, an area that has become a net exporter of labour must surely be developing in this way.

Table 14.7 summarises some of the information about place of work of people resident in the municipal borough, and place of residence of people working there.

Whereas the 1951 and 1961 figures show that the number of persons working in the borough exceeded the number of its residents who were economically active, the 1966 sample census tells the opposite story. Unfortunately, at the time of writing, similar data for 1971 are not available. The geographical breakdown indicates an interesting change of pattern. As one might expect, the greatest exchange of labour is with the rural district, from which a slowly increasing number of workers have jobs in the borough, but which also provides an appreciable number of jobs for the borough's residents. In 1966 the Ten per cent Sample Census estimated the number of these residents working in the rural district at 300, compared with the 290 in 1961 and 167 in 1951. The number of residents working in London was almost as high – an estimate of 270, whereas in 1961 it was only 110 and in 1951 only 46. A further 60 people had jobs in Hertfordshire, and 150 in other parts of Essex. Cambridgeshire provided some 300 jobs, a third of them in the city. The County of Cambridgeshire was also the home of 200 people working in Saffron Walden. The pattern that emerges shows a very marked increase in commuting to the south, and to the rest of Essex, and a growth in the exchange of labour with Cambridgeshire.

Similar figures for the rural parts of the EEA are not available, but we do know that in 1966 in the rural district as a whole (which extends beyond our sub-region) 42% of the economically active males and 37% of the active females had jobs outside the rural district. Many of these would have been inside the borough.

One further straw shows the direction of the wind. In Table 14.8 we have the numbers of persons holding season tickets to London, issued at railway stations in the sub-region. To some extent this may reflect a change in the mode of travel, but however one looks at it 581 season tickets to London indicate an appreciable degree of commuting.

Table 14.7A Place of work of all economically active persons resident in Saffron Walden MB

	1951		1961		1966	
		%		%		%
Total residents economically active	2,902		3,470		4,430	
(i) Working locally in the MB	2,512	86.6	2,760	79.5	3,330	75.2
(ii) Commuting out of the MB	390	13.4	710	20.5	1,100	24.8
viz						
Cambridge MB	57	2.0	90	2.6	110	2.5
South Cambs RD	33	1.1	70	2.0	170	3.8
Cambs other					20	0.4
Saffron Walden RD	167	5.7	290	8.4	300	6.8
Essex other	29	1.0	70	2.0	150	3.4
London	46	1.6	110	3.2	270	6.1
Herts					60	1.4
Other	58	2.0	80	2.3	20	0.4

Table 14.7B The place of residence of all persons working in Saffron Walden MB

	1951		1961		1966	
		%		%		%
Total persons working in the MB	3,171		3,610		4,330	
(i) Resident locally in the MB	2,512	79.2	2,700	76.4	3,330	76.9
(ii) Commuting into the MB	659	20.8	850	23.6	1,000	23.1
viz						
Cambridge MB					50	1.1
South Cambs RD	44	1.4			150	
Cambs other			60	1.7	10	0.2
Saffron Walden RD	465	14.7	510	14.1	530	12.2
Dunmow RD	57	1.8	160	4.4	100	2.3
Essex					60	1.4
Other	93	2.9	120	3.3	100	2.3

Source: Census of Population 1951, 1961, 1966

Table 14.8 Number of season tickets to London issued by BR

Station of departure	1961	1969	1970
Newport	32	48	66
Audley End	92	255	504
Gt. Chesterford	2	8	11
Total	126	311	581

Source: West Essex Rural Study, Essex CC

With such a low growth in jobs for males in this employment exchange area one might, in the absence of commuting, expect to find high unemployment rates. In fact the reverse is true, with rates that in recent years have been low even by the standards of the sub-region. They are summarised in Table 14.9. On the whole registered vacancies have exceeded numbers of unemployed persons, and while this may conceal differences in industrial composition it seems probable that it does reflect a shortage of labour. One reason why male employment has grown so slowly is that the men migrating into Saffron Walden have not needed jobs, while the growth of service and manufacturing employment has absorbed all available local male labour, leaving the place unattractive to new employers.

There is one important question that must always be raised when we consider an area that caters for commuters on a fairly large scale. How will things look when the commuters' children start to seek work? Even though this is not a question that applies to every household, the fact is that as time goes on the children of commuters will need jobs somewhere or the other; and in their earlier years of employment they will be less able to afford to commute than their parents are now. When that arises, the need for suitable local employment will increase: but it is extremely difficult to plan for it in advance, especially without detailed study of a kind that time has prevented us from undertaking. The important thing is to be aware of the existence of this need. The social characteristics and job aspirations of these younger people could be such that the Saffron Walden area might develop even further in professional services, possibly even to the extent of becoming an office centre. If that were to happen it would be very important to resist commercial pressures for redevelopment of its remarkable centre.

The growth of population has had its effect on housing. Here there are three factors combining to produce a housing market that is different from what it is in most towns. There is an unusually high proportion of really old houses, including mediaeval cottages, 17th century timber frame houses, Georgian terraces and Victorian houses. There has been, and still is, an intense pressure from commuters. And there has been a sharp reduction in building because of sewage problems. We must now look at these factors a little more closely, and in the context of the available statistics.

In 1971 the number of dwellings recorded in the Municipal Borough was 3,410, compared with 2,600 in 1961 and 2,115 in 1951. By far the bulk of the building was done by the private sector, as is illustrated in Table 14.10 that summarises the data for 1956–1972. This heavy emphasis on the private sector reflects the demand for house ownership arising from commuters and other migrants into the area. It also reflects their ability to pay. Further detail appears in Table 14.11.

On the other hand, in earlier years it was a different story, and Saffron Walden municipal borough has an appreciable stock of local authority houses amounting to about a quarter of the total. In 1961 the town compared quite favourably with the national and sub-regional averages in this respect, but the rural district was very much below average. What emerges from an examination of the data for later years is more or less just what one would expect in this town in which a commuting element, much of it fairly prosperous, has become increasingly important; while data for the rural

Table 14.9 Unemployment and vacancies: average registered unemployed and registered vacancies, 1961–66 and 1967–71

Period	EEA Saffron Walden			Sub-Region % unemployed	East Anglia % unemployed	GB % unemployed
	Nos. Vacs.	Nos. Unemp.	% unemployed			
1961–66						
January	73	69	1.2	1.0	–	2.1
July	88	34	0.6	0.5	–	1.4
1967–71						
January	72	78	1.3	1.4	2.0	2.7
July	83	64	1.1	1.4	2.4	2.5

Source: Department of Employment

Table 14.10 Housing construction, demolition and closure, 1956–72

Area	Total built	% public sector	% private sector	Total demolished	% of total built
S. Walden MB	1,415	23.5	76.5	95	6.7
Sub-Region	62,724	35.9	64.1	6,932	11.1
Great Britain (000's)	5,377.6	47.4	52.6	1,208.6	22.5

Source: DOE, Local Housing Statistics

Table 14.11 Housing construction: completions, demolitions and closures, 1956–72: Saffron Walden MB

Year	Construction			Demolitions and closures			Net increase
	Public	Private	Total	In clearance area	Elsewhere	Total	
1956	56	36	92	–	–	–	92
1957	20	16	36	–	4	4	32
1958	24	19	43	–	9	9	34
1959	–	46	46	–	3	3	43
1960	16	53	69	–	–	–	69
1961	26	58	84	–	–	–	84
1962	5	86	91	12	6	18	73
1963	32	80	112	–	7	7	105
1964	18	97	115	–	10	10	105
1965	52	84	136	–	7	7	129
1966	–	101	101	8	3	11	90
1967	–	124	124	–	1	1	123
1968	28	79	107	–	–	–	107
1969	20	42	62	–	1	1	61
1970	–	21	21	–	–	–	21
1971	35	32	67	–	–	–	67
1972	–	109	109	–	–	–	109
1956–72	332	1,083	1,415	20	75	95	1,320

Source: DOE, Local Housing Statistics

area emphasise the story, even though in some of the smaller villages the proportion of owner-occupied houses is usually somewhat lower than it is in Saffron Walden Rural District, where it is now approaching 60%.

Evidence of a certain degree of well-being is also presented in Tables 14.12 and 14.13 which show that, despite the high number of old dwellings, the town of Saffron Walden compared well with both the national and the sub-regional averages in terms of household amenities and rooms per person. To some extent this reflects the fact that the households were, on average, slightly on the small side.

It is inevitable that the forces we have mentioned should also be reflected in house prices; and this is true of older property as well as of new. The last two columns of Table 14.10 indicate that there has been little demolition in the area. This is examined further in Table 14.11, which shows that like construction it began to decline after the mid-sixties. One reason for the low level of demolition is that so much that is old in this town is worthy of preservation; and there are plenty of people able and willing to undertake it if the reward is a house of character in a beautiful setting accessible to Cambridge and London. A 17th century artisans cottage could command a price of £10,000 in 1972, and the few unmodernised terrace cottages in Castle Street that were coming onto the market were going for £5,000 or more. Two-bedroom Victorian houses, occasionally available for under £3,000 were bought for restoration and modernisation, often at considerable cost. The new houses built in recent

Table 14.12 Private households with exclusive use of facilities: 1961, 1966, 1971

Area	Year	Total households	No. with exclusive use	% with exclusive use of facilities
MB	1961	2,555	1,776	69.5
	1966	3,090	2,390	77.3
	1971	3,350	2,995	89.4
Sub-Region	1961	106,401	68,556	62,9
	1966	121,260	89,240	73.6
	1971	138,205	119,005	86.1
GB	1961	16.2M	11.3M	69.4
	1966	16.9M	12.4M	72.9
	1971	N/A	N/A	N/A

Notes:
1961: cold water, hot water, fixed bath, w.c.
1966: hot water, fixed bath, inside w.c.
1971: hot water, fixed bath or shower, inside w.c.

Source: Census of Population 1961, 1966, 1971

Table 14.13 Total private household population: average household size, normal occupancy

Area	Year	Total private household population	Total No. households	Average size of household	% persons living at over 1.5 pp room*
Saffron Walden MB	1961	7,503	2,555	2.94	1.9
	1966	9,090	3,090	2.81	0.9
	1971	9,435	3,350	2.82	0.6*
Sub-Region	1961	321,849	106,401	3.02	3.4
	1966	353,085	121,260	2.91	1.0
	1971	395,540	138,205	2.86	1.0*
GB	1961	49.5M	16.2M	3.06	7.0
	1966	50.7M	16.9M	2.99	3.2
	1971	N/A	N/A	N/A	N/A

*A density of 1.5 persons per room is generally recognised as overcrowding. Definition of room changed in the 1971 Census, effectively increasing the number of rooms.

Source: Census of Population 1961, 1966, 1971

years command higher prices. An average family house of a modest kind sold at anything between about £8,750 and £13,000 in 1972 depending upon its type and location. Obviously there are differences in the kinds of houses for sale; but it appears that somebody purchasing a house in Saffron Walden is likely to be offered some at prices higher than those commanded by houses in Cambridge. Whether the children of today's commuters will be able to pay such prices is at present very doubtful.

Most of the new housing has occurred to the south of the town, notably between the Thaxted and Newport roads, where there are small estates of terraced, semi-detached and detached houses, mainly of a modest (and often anonymous) character. More imposing developments have occurred at Farmodine, Saxon Way and Little Larchmount. In all, this new housing probably accommodates upwards of 4,000 persons.

The temporary constraint on housing supply imposed by a sewage problem must not be given too much importance in this story of high, and rising, house prices. It would also be easy to dismiss the phenomenon as one that arises everywhere. What is too important to be overlooked is that at present there is an almost fixed supply of housing but that commuting pressures are increasing. There is every reason to expect these pressures to continue to increase, rather than to diminish, during the next fifteen or twenty years. When the sewage problem has been solved, and building can go ahead, these commuting pressures will manifest themselves not only in the housing market. One obvious area of impact will be its shopping centre, which is of a very unusual kind.

The old town of Saffron Walden has retained most of its identity. Growth has occurred on its edges rather than at the cost of central development. Obviously many changes have taken place; and in particular many old houses have been converted into shops and offices. But it is also true that much remains more or less as it has for centuries. Instead of a well-defined shopping area there is a large central area where shops, houses, offices, factories, warehouses and a livestock market vie for space. Many of the shops are small, and many are of local, and at times historical, origin. On the other hand, there are also branches of several of the national multiples. High Street is becoming increasingly dominant, and yielding to the commercial pressures of redevelopment in a way that does not augur well for the preservation of this beautiful town centre.

According to county planning records, shopping floorspace in the centre of Saffron Walden amounted to 68,880 square feet in 1965. Nearly two fifths of this was devoted to the sale of convenience goods. Rating statistics for 1967 indicate a total area of 195,000 square feet. In 1961 the Census of Distribution recorded total sales in the borough of £2.26 million, of which 61% arose from sales of convenience goods accounting for just over £1 million.

Two sets of surveys undertaken by us shed some light on the origins of the people who shop in Saffron Walden. On Thursday, October 28th 1971 and on Saturday October 30th, we interviewed shoppers in the streets of Saffron Walden, using a sampling technique described later in the Report. On the market day 258 shoppers were questioned, and on Saturday we spoke to 196 shoppers. Table 14.14 summarises the results.

On the Thursday, just over half (132) of the interviewed shoppers lived within the borough, and 23 of these also worked there. Most had come shopping on foot, but a fifth of them had used their cars, even though they lived within the borough. Another 73 persons, representing 28% of the total, came from elsewhere in the employment exchange area. Two-thirds of these came by car, and almost all the others by bus. Other areas within about ten miles of the borough supplied a further 40 shoppers, of whom three quarters used cars.

The remaining twelve shoppers came from areas further away than 10 miles.

The Saturday pattern differs in an interesting way. Only 86 of the 196 interviewed shoppers lived locally. The rest of the EEA supplied 45 shoppers, which is also a lower proportion of the total than that recorded on Thursday. On the other hand, areas within about ten miles but outside the

Table 14.14 Spending levels of shoppers by day, mode and purpose

Day	Expenditure group	Mode and purpose									Total work	Total non-work
		Car			Bus/train			Foot/cycle				
		Work	Non-work	Total	Work	Non-work	Total	Work	Non-work	Total		
Thursday	Low	8	6	14	3	3	6	4	11	15	15	20
	Medium	4	42	46	2	11	13	8	44	52	14	97
	High	1	55	56	2	14	16	4	31	35	7	100
Saturday	Low	3	4	7	–	1	1	3	3	6	6	8
	Medium	3	36	39	–	5	5	1	34	35	4	75
	High	1	59	60	–	9	9	2	32	34	3	100

Source: Cambridge Sub-Region Study: Shopping Surveys

EEA provided 58 shoppers, almost all of them coming by car. The outer-hinterland was clearly more important, supplying 15.6% of the total on Thursday but 29.6% on Saturday.

Another interesting comparison is of the expenditure of people who came by various modes of travel. It is quite clear that people who came by car, bus or train were much more likely to be spending a lot of money, especially on Saturday. This is mainly a function of distance travelled. As Table 14.15 shows the people who came in from the rest of the EEA were more likely to be high spenders than were the locals. We may also note that people who were working, as well as shopping, in Saffron Walden on the day of their interview tended to be low spenders.

Table 14.15 Spending levels of shoppers by day and by origin

Expenditure	Thursday			Saturday		
	Local	EEA*	10 mile†	Local	EEA*	10 mile†
Low	12	4	3	4	2	2
Medium	59	20	15	38	12	20
High	38	41	18	37	29	32

*Elsewhere within the Employment Exchange Area
†Within ten miles but outside the EEA
Source: CSRS Shopping Survey

Thus the overall pattern emerging from these street surveys is more or less what one would expect. Local people use Saffron Walden for all kinds of expenditure, but, like others, tend to put their larger spending onto Saturdays rather than Thursdays. Those coming from elsewhere in the EEA are more likely to use cars, and likely to be spending more money. A point of some interest is that those living outside the EEA but within about ten miles of the borough are relatively more inclined to be medium level spenders, as Table 14.15 illustrates. Presumably, if they want to spend a lot of money, they are at times attracted to one of the larger centres, to which they live nearer than do the people of the EEA.

Other information about shopping in Saffron Walden comes from our survey of the shopping habits of households in a sample of settlements in the sub-region. We say more about this in our chapter on sub-regional shopping, but we can say something here about the shopping habits of people living in Saffron Walden. They take about 30% of their expenditure on durables to Cambridge. The proportion is higher for clothes than it is for household durables. London is also a strong attractor for spending on clothes, but is surpassed by mail-order as a provider of household durables. No other town competes strongly for the custom of Saffron Walden households. Convenience shopping is, as one might expect, almost entirely local, with at least 90% of the purchases of most convenience categories being made within the borough. Cambridge and Bishop's Stortford each received about 2% of this trade. For the residents of villages round about there is a basically similar pattern, except that some of the convenience shopping is done in the village, or in a nearby village, rather than in Saffron Walden.

It has been argued by some that Saffron Walden is over-provided with shops. For the last few years the centre has had about 10 empty shops, and many of those occupied appear to have empty premises about them. The old Corn Exchange is empty and almost derelict. On the other hand the important site on which the Rose and Crown hotel stood before being burned down has been taken over by a major multiple. A very deep site, with a pleasing facade in the High Street and another at the back, opposite the church, but a jumble of sheds in between, has lately been sold vacant with planning permission for development as shops and offices. The point to keep in mind is that quite apart from the increased pressures that will arise when house-building is less constrained than now, there is growing pressure from customers who come from Haverhill and other rapidly growing places.

In the plan for the period 1961–81 some 15–17 acres south-west of the central shopping zone was set aside for commercial use, and generally there is a policy of preventing expansion of central area warehousing and office floorspace. Yet empty properties very rapidly decay, and irreparable damage to the delicate fabric of this town is already all too evident. The task of conservation is never easy. If central sites are prosperous, there is an urge to redevelop. If they are not very profitably occupied, then there is either decay or an attempt to change land-use, or to re-organise spaces. This is one of the problems that we have to try to solve.

The essential attraction of Saffron Walden for commuters is that this beautiful town has a very useful network of communications. It lies astride the A130, linking Cambridge to Chelmsford and Southend. A little to its west the A11 runs north-south, giving access to London. By crossing it, one reaches Royston. There is also good access to Newmarket and further east. Most important of all for some commuters is that it is very close to Audley End railway station. The extension of the M11 motorway north from London to Stump Cross, passing to the west of the borough near the line of the old A11, will reduce road travel time to London, and make the town even more attractive to commuters than it is now. The rural areas are also served by stations at Great Chesterford and Newport. Stansted airport is about 10 miles south of Saffron Walden, with good access by the A11.

We have already seen the importance of the railway in taking commuters to London, and of cars in bringing in shoppers. Further evidence appears in Table 14.16 which summarises the mode of travel of people working in Saffron Walden, and of residents working outside it. Of the 1,000 persons working in the borough but living outside it, three-quarters came to work by car, goods vehicle or motor cycle, and about one-seventh by bus. On the other hand, a quarter of the 1,110 residents who worked outside the borough in 1966 used the trains, with cars being much less important than for work-trips into the borough. Buses were about equally important in both directions.

It is also to be noted that cars, goods vehicles or motor cycles provided transport to work for about 30% of the residents of the borough who worked locally; and a large proportion of these vehicles would need to be parked within the borough, and near the place of work. In all, about 1,750 persons working in the borough arrived by private motor vehicle. This represents about 40% of the local work-force. If we add the vehicles used by shoppers and people on business calls to the great variety of establishments in the town centre – not forgetting the cattle market – and remember the organically derived street pattern, we can begin to see why town centre shopping there is deemed by some to be an unpleasant experience that is made even frightening by the additional immense loads of through traffic. Various proposals for by-passes have been put forwards. We hope that action will now be speedy, both to make the shopping centre more attractive and viable, and in this and other ways to facilitate the conservation of the town. Possibly the value placed by cost-benefit analysts on savings of travel-time by air-passengers from Maplin will help to swing the argument: but whether the values placed by currently accepted methods on old buildings and street patterns will suggest a by-pass or a shorter road that comes closer to the centre, with the threat of eventually leading to demolitions and to some severance of the old town from its immediate hinterland, is less certain. In my view many of these methods of evaluation are to be acclaimed more for their ambition than for their validity.

We must also say a word about bus-services. We have already noted their importance in the journey to work. In the journey to shop, of the 111 interviewed shoppers who came from outside the borough for the purpose of shopping on Thursday, 29 came by bus. On Saturday 12 out of 104 such shoppers arrived in this way, and so did 2 who lived locally. These figures suggest that on the whole people in this area depend more on buses for getting into the shopping centre than they depend on them for getting to work in the town. Yet, as in so many other rural areas, there is the vicious circle of declining demand and higher costs. The services provided are far from adequate from the villagers' viewpoint. That is one reason why so many cars clutter the centre of Saffron Walden.

We have concentrated on the beauty and historic quality of the town, but, in a different way, the countryside and villages around it also have very great appeal. Some of the finest gentle landscape in England is in this area. In particular, at Audley End is the famous mansion built over three hundred years ago, set in its equally famous park. It is perhaps indicative of our modern dilemma that at present it is here, in the park, that the very necessary new sewage works seem likely to be sited.

Table 14.16 Saffron Walden MB – Journey to work modal split 1966

Area	Workplace movements	Total persons in employment	Percentage						
			Train	Bus	Car	Goods	Motor cycle	Pedal cycle	Other
Saffron Walden MB	Total persons in employment, resident in area	4,430	6.3	5.2	27.3	5.2	2.5	14.7	38.8
	Persons resident but working outside the area	1,110	24.5	16.4	37.3	7.3	4.5	5.5	4.5
	Persons resident and working in the area	3,330	0.3	1.5	24.0	4.5	1.8	17.7	50.2
	Persons working in the area, but resident outside	1,000	1.0	15.0	63.0	7.0	4.0	6.0	4.0
	Total persons working in the area	4,330	0.5	4.6	33.0	5.1	2.3	15.0	39.5

Source: 1966 Census, Workplace and Transport Tables Part II

Chapter 15

The Royston area

Where Icknield Way, built before the Romans came, is crossed by the Roman road of Ermine Street, now stands Royston, surrounded by beautiful countryside but unfortunately now containing very little of its more pleasing historic architecture. It is 14 miles south, and slightly west, of Cambridge at the foot of a chalk escarpment. Just within Hertfordshire, it has more fairly large towns within twenty miles than does any other of the Sub-Region's market towns. London is only 41 miles away. Its employment exchange area contains 26 parishes and one urban district. It draws upon the rural districts of Hitchin, South Cambridgeshire and Saffron Walden, and upon the counties of Hertfordshire, Cambridgeshire and Essex.

Royston is the smallest of the market towns. In 1951 it had only 4,510 population. As we can see from Table 15.1, in the next decade there was a growth of almost 40%, to 6,250 and by 1971 a further rapid growth had pushed it up to 8,460. During the same period the rural areas grew in population from 12,829 to 16,815, with almost two-thirds of the increase occurring in the sixties. The EEA's population is now almost half as large again as it was in 1951. This rate of increase is very similar to that of the exchange areas of Haverhill and St. Neots, both of which have benefited from TDA schemes. On the other hand the Royston area was more inclined than these others to grow in the fifties.

The population of the rural areas grew by 12% in the fifties and by 21% in the sixties. In only the Cambridge and Huntingdon EEA's did the rural population grow even faster. Both the principal town and the rural areas have expanded at a remarkable rate without help from planned overspill.

At present almost two-thirds of the rural population lives in Cambridgeshire. It is notably concentrated in areas close to the main A10 road to Cambridge, and to the A14 road to Huntingdon and the north. There are areas where expansion has occurred. Meldreth, for example, has had a population increase from 636 in 1951 to 1,502 in 1971. This includes 175 persons in a spastics' home opened between these years. On the other hand, some parishes have declined. Figure 15.1 shows the picture more clearly. The eight parishes in Cambridgeshire took about 92% of all the EEA's rural growth that occurred in the sixties, and about 58% of the total growth in the EEA's population. If we put the sixties and fifties together we find that these Cambridgeshire parishes

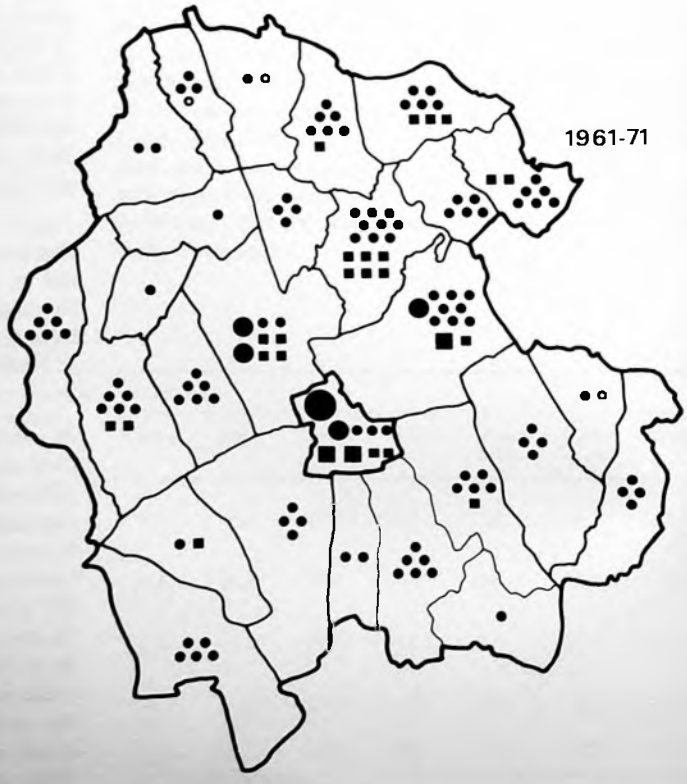


Figure 15.1 Royston: Population distribution and change; 1951-61, 1961-71

Key

- 100 population base year
- 1,000
- 5,000
- 100 decrease over 10 years
- 100 increase over 10 years
- 1,000
- 5,000

Table 15.1 Total civilian population, 1951–1971

Royston EEA	Population		% Growth	Population	% Growth
	1951	1961	1951–61	1971	1961–71
Urban areas	4,510	6,250	39%	8,460	35%
Rural areas	12,360	13,829	11.9%	16,815	21.6%
EEA total	16,870	20,079	19%	25,275	26%

Sources:
Registrar General's Mid-Year Civilian Estimates
Census of Population 1961
Local Population Estimates

took up almost all of the rural growth and almost 60% of the total growth.

The Registrar General has provided estimates of the importance of migration in these remarkable growths. The information is summarised in Table 15.2. In Royston Urban District migration is estimated to have accounted for 87% of the population increase of the fifties.

Table 15.2 Natural change and migration,* 1951–1971

Area	Components of change	1951–61	1961–71
Royston UD	Natural	226	633
	Migration	1,509	1,677
	Total	1,735	2,214
	Migration as % total	87%	71%
South Cambs RD	Natural	1,692	2,669
	Migration	2,718	5,021
	Total	4,410	7,691
	Migration as % total	61.6%	65.3%
East Anglia	Natural	64,636	83,910
	Migration	38,121	120,520
	Total	102,757	204,430
	Migration as % total	37.1%	58.9%

* Total civilian population.

Source: Registrar General's Estimates

It received more immigrants than any of the expanded towns in our Sub-Region. In the sixties migration was responsible for about 72% of the change. Not all of South Cambridgeshire Rural District is within the EEA that we are now discussing, but a substantial part of it is, and we have already seen that the bulk of the rural increase took place there. In the fifties about 65% of the population growth of that Rural District was due to migration. In the sixties it was, as for the town of Royston, about 71%. These percentages far exceed those for East Anglia as a whole (these being 37% in the fifties and 59% in the sixties). Once more a comparison may be made with towns where there has been planned overspill. Royston's percentage dependence on migration as a component of population growth in the sixties is almost exactly the same as that of Huntingdon and Haverhill. It is not quite up to the St. Neots figure of nearly 82%.

Two principal factors seem to have brought about this increase in the employment exchange area's population. There has been a deliberate policy on the part of Cambridgeshire County Council to expand selected villages, rather than to permit the rapid growth of Cambridge itself. This is not the whole story, since it does not explain why growth has taken place on such a scale. What we can surmise however is that some of the growth that Cambridge would have seen if policy had permitted it, both naturally and through migration, has gone to the Rural District instead, and that some of this has gone to the parishes north of Royston. Associated with this as a factor governing the concentration of growth into the areas north of Royston is the fact that so much of the area to the south is deemed to be of great landscape value. The other factor determining the scale of growth has undoubtedly been Royston's favourable position relative to London, to which it has good access by road and rail. It is increasingly a commuter area.

It is interesting to note from the age pyramids in Chapter 9 that although there is evidence of an inflow of young parents with young children, it is much less marked than in the case of the TDA towns.

There are three main institutional populations in the EEA. A training camp at Bassingbourn has a variable military population that was estimated to be around 400 by the Registrar General in 1971. In Royston there are the GLC schools with a population of about 70. There is also the Spastics Home at Meldreth, already mentioned.

Like so much of the Sub-Region, the Royston EEA was once primarily an agricultural area; and like so much of the Sub-Region it has shifted towards manufacturing. Table 15.3 compares the industrial structures of 1951 and 1971. Agriculture remains very important in comparison with its role in other areas, but now accounts for less than one job in eight, compared with one in three, twenty years ago.

The shift towards manufacturing, with a doubling of its percentage share of the total and a trebling of the number of jobs, has been dramatic. In percentage terms, manufacturing has become as important a source of employment

Table 15.3 Employment structure*, 1951 and 1971

Employment sector	1951				1971				
	Royston EEA		Sub-Region	GB	Royston EEA		Sub-Region	East Anglia	GB
	No.	%	%	%	No.	%	%	%	%
Agriculture	1,642	34.0	17.8	3.8	860	11.6	6.5	7.3	1.6
Manufacturing	957	19.8	21.5	44.2	3,017	40.8	30.7	34.0	40.0
Construction	387	8.0	8.0	6.4	358	4.8	7.1	6.9	6.0
Services	1,851	38.3	52.7	45.6	3,152	42.6	55.6	51.6	52.1
Total	4,837	100	100	100	7,388	100	100	100	100

Note: Percentages may not total 100 due to rounding and non-specified category
* Total insured employees.

Source: Department of Employment, E.R.II

Table 15.4 Employment growth* in Royston EEA, 1951–1971

	1951–1961			1961–1971			1951–1971		
	Royston EEA	Sub-Region	GB	Royston EEA	Sub-Region	GB	Royston EEA	Sub-Region	GB
Male	–1.6	9.6	6.5	31.6	14.8	–2.6	29.4	25.8	3.7
Female	9.0	21.4	12.6	105.8	32.1	7.6	124.3	60.4	21.2
Total	1.0	13.4	8.6	51.3	20.8	1.0	52.7	36.9	9.7

*Total insured employees

Source: Department of Employment, E.R.II

in this exchange area as it is nationally. This is partly because a period that saw population increase by over 50% had an increase of not much more than 40% in service employment.

Tables 15.4 and 15.5 look at the growth rates of employment and at activity rates. In the fifties male employment declined, but there was a 9% increase in jobs for females. In both respects this predominantly agricultural area did less well than the country as a whole, and much less well than the sub-region. Here, at the southern extremity of our study area, only 41 miles from London, was an area of low population growth and even lower – almost negligible – growth in employment, lagging far behind other agricultural areas that were further from London. In the next decade, without any help from TDA schemes, there was a dramatic reversal, with the Royston EEA setting the pace: male employment rose by almost a third and female employment doubled.

Table 15.5 Male and female activity rates, 1961, 1966

Area	1961		1966	
	M	F	M	F
Royston UD	83.2	31.0	93.2	47.4
South Cambs RD	88.5	29.3	84.7	36.8
Sub-Region	82.2	31.1	85.3	38.6
England and Wales	86.2	37.7	84.0	42.3

Source: Census of Population 1961, 1966

Activity rates rose markedly. By the mid sixties both male and female rates in the Urban District were estimated to be well above the sub-regional and national averages, while in the South Cambridgeshire Rural District, differing from the rural part of the EEA but probably some guide to its fortune, the male activity rate was about the same as the sub-regional and national ones, while the female rate was a little lower. At the time of writing, rates for 1971 were not available.

As we have seen, total employment has grown less rapidly than population, but activity rates are increasing. This means that a large number of people resident in the area and economically active work outside it. This is a statement that emphatically relates to the EEA rather than to the town. Table 15.6 presents journey to work data for 1951, 1961 and 1966. In 1951, just under a quarter of the workers living in Royston worked outside it. Within ten years the fraction rose to almost a third. This was a time when total employment in the EEA rose only slowly, and to some extent this is reflected in the figures of people living outside the town who worked within it. In 1951 they outnumbered those who commuted outwards, while in 1961 they were substantially fewer than those who travelled in the reverse direction.

According to the Sample Census of 1966, the balance between the two flows was precisely struck in that year, with 1,070 people (32% of the working population) travelling out of the town to work, and exactly the same number of outsiders travelling in. We await data for 1971. As it stands

Table 15.6A Place of work of all economically active persons resident in Royston: 1951, 1961, 1966

Royston area	1951		1961		1966	
	Number	% of total economically active residents	Number	% of total economically active residents	Number	% of total economically active residents
Total residents economically active	2,065	100	2,580	100	3,350	100
i) Working locally	1,576	76.3	1,760	68.0	2,280	68.0
ii) Commuting out	489	23.7	820	31.8	1,070	31.9
viz						
Cambridge	67	3.2	90	3.0	70	2.1
Sth. Cambs.	123	6.0	210	8.0	200	5.9
Baldock UD	31	1.5	50	2.0	120	3.6
Letchworth UD	169	8.2	310	12.0	320	9.5
Hitchin UD					50	1.5
Stevenage UD					70	2.1
Bedfordshire					70	2.1
Other Herts					110	3.3
Other	99	4.8	160	6.2	60	1.8

Table 15.6B Place of residence of all persons working in Royston: 1951, 1961, 1966

Royston area	1951		1961		1966	
	Number	% of total persons working in Royston	Number	% of total persons working in Royston	Number	% of total persons working in Royston
Total persons working in Royston	2,084	100	2,470	100	3,350	100
i) Resident locally	1,576	75.6	1,760	7.3	2,280	68.1
ii) Commuting into Royston	508	24.4	710	28.1	1,070	31.9
viz						
Cambridge			50	2.0	70	2.1
Sth. Cambs.	263	12.6	450	18.0	540	16.1
Braughing			50	2.0		
Hitchin RD	117	5.6	140	16.0	160	4.8
Hitchin UD						
Chesterton RD					60	1.8
Greater London					60	1.8
Bedfordshire					50	1.5
Other Cambs.					10	0.3
Other Herts	128	6.2	20	0.8	70	2.1
Other					50	1.5

Source: Census of Population 1951, 1961, 1966

the information we have just summarised may not appear to be easily reconciled with our assertion that the EEA must have a large outflow of labour, but Table 15.7 presents the answer. One expects a market town to be a net importer of labour. Ely, Haverhill, Huntingdonshire and Newmarket quite definitely are importers. Cambridge is, relatively as well as absolutely, even more of an importer of labour. In 1966 Saffron Walden and St. Neots were net exporters. We have seen the importance of commuting for one of these, and we shall shortly see it for the other. Royston, with its precise balance, in fact lacked that excess of inward commuting that a market town can be expected to have from its own hinterland unless either the hinterland is sending its labour elsewhere or an excessive proportion of its own residents work elsewhere. No other market town in our sub-region had such a high proportion of its residents commuting outwards to work. A detailed analysis of Census data shows that in 1966 about 870 residents of Royston Urban District

Table 15.7 Journey to work: proportion of labour force commuting into and out of the UD's, 1966

Town	% Commuting out	% Commuting in
St. Neots	28.9	20.4
Saffron Walden	24.8	23.1
Ely	16.1	28.9
Haverhill	15.0	33.0
Cambridge	9.8	31.2
Hunts. and Godmanchester	22.3	32.6
Newmarket	20.0	36.0
Royston	31.9	31.9

Source: Census 1966

had jobs outside the EEA, but only 150 persons from outside the EEA worked within Royston. Most of the inward commuters came from close at hand, mainly the residential villages of southern Cambridgeshire, but the outward commuters journeyed further. And it seems probable that many of the residents of the rural EEA went to the same work places – to Cambridge, South Cambridgeshire, Baldock, Letchworth, Hitchin, Stevenage and other places to the south and west. In 1966 nearly two-thirds of the commuters out of Royston town went to places in Hertfordshire.

Apart from Royston itself, the only substantial employment centres in the EEA are in the two Cambridgeshire villages of Melbourn and Meldreth. In 1971 they employed respectively 496 and 779 non-agricultural workers. They are close together and can for some purposes be looked upon as a single employment area, providing jobs for about one-fifth of the EEA's labour force. The industrial structure of this secondary area differed from that of Royston in 1971. Its principal differences were a dependence of the smaller area almost to the extent of fifty percent, on one industrial group, with instrument engineering coming second, employing 23%. Distribution, the biggest single activity in Royston, is unimportant in this smaller area. Taking the area as a whole, fifteen employers account for over 50% of the employment. Agriculture, still very important, is orientated towards cereal production.

Table 15.8 Recent unemployment rates (%)

	Royston	GB	East Anglia
Sept. 1971	1.5	3.9	3.2
Dec. 1971	1.9	4.0	3.3
March 1972	2.2	4.3	3.6

Source: Department of Employment

As elsewhere in the sub-region, unemployment levels are low; they approximate in recent years to the average for the sub-region. Registered vacancies have lately exceeded registered unemployment.

Housebuilding has, of course, reflected the rise in population. Table 15.9 shows how building in the urban district dipped to a trough in 1963 but then rose, strongly if unsteadily, to a substantial peak in 1969, with a heavy bias towards the private builder. During the period 1956–1972 over 1,600 houses were built. Data for the rural parts of the EEA are less easily obtained, but we may note that in South Cambridgeshire Rural District housebuilding completions averaged over 380 per annum, while in Hitchin Rural District they averaged about 180 per annum. In the former case about 70%, and in the latter about 60%, of all housebuilding was done by private enterprise. Demolition has been at a low rate. Further detail appears in Tables 15.9 and 15.10.

The low level of public authority building in the sixties, when the private sector was much more active, though wavering, is reflected in statistics of tenure, summarised in Table 15.11 which also reveals that in years before 1961 the public sector had been relatively more important than in the sub-region as a whole and, indeed, than in the country as a whole. Privately rented accommodation is scarce by national and regional standards, and with the decline in tied and other accommodation this means that in 1966 over 82% of the total housing was either owner-occupied or local authority rented. The shift towards the former developed through the sixties, becoming 59.8% of all houses in 1971, compared with 41.3% in 1961. This is probably an exaggeration of the true change, because of a different treatment of 'tied' houses in two censuses.

Table 15.9 Housing construction: completions, demolitions and closures, 1956–72

Year	Construction			Demolitions and closures			Net increase
	Public	Private	Total	In clearance area	Elsewhere	Total	
1956	37	11	48	–	–	–	48
1957	98	30	128	–	2	2	126
1958	74	19	93	–	10	10	83
1959	48	61	109	–	1	1	108
1960	18	126	144	23	20	43	101
1961	–	88	88	–	6	6	82
1962	21	46	67	–	1	1	66
1963	–	18	18	–	–	–	18
1964	4	64	68	–	7	7	61
1965	12	44	56	–	2	2	54
1966	–	46	46	–	2	2	44
1967	6	101	107	–	6	6	101
1968	36	65	101	–	–	–	101
1969	18	170	188	–	1	1	187
1970	–	158	158	–	–	–	158
1971	54	163	217	–	–	–	217
1972	–	33	33	–	–	–	33
Total	426	1,243	1,669	23	58	81	1,588

Source: Department of Environment: Local Housing Statistics.

Table 15.10 Housing completions, demolitions and closures, (Sector proportions) 1956–72

Area	Completions	% public sector	% private sector	Total demolished or closed	Demolished as % of total built
Royston UD	1,669	25.5	74.5	81	4.9
Sub-Region	62,724	35.9	64.1	6,932	11.1
Great Britain (000's)	5,377.6	47.4	52.6	1,208.6	22.5

Source: Department of Environment: Local Housing Statistics.

Table 15.11 Tenure structure %

Area	Year	L/A or new town rental	Owner occupied	Private rental	Tied and other
Royston UD	1961	33.9	41.3	19.1	5.5
	1966	32.8	49.3	15.9	1.9
	1971	27.9	59.8	12.3	not stated
Sub-Region	1961	25.7	38.0	23.7	12.8
	1966	26.9	41.9	19.9	11.3
	1971	29.0	46.6	24.2	0.2
Great Britain	1961	25.5	40.6	27.5	1.8
	1966	28.7	46.7	19.2	5.4
	1971	30.7	50.1	14.2	5.0

Note: 1971 for permanent dwellings only. All categories allocated except 'not stated'

Source: Census of Population 1961, 1966, 1971

Household sizes in Royston Urban District tend to be higher than the average for the sub-region, as is shown in Table 15.12. Overcrowding is falling. It is probably to be found mainly amongst the younger households.

As one might expect in an area where there has been a great deal of recent building, much of it associated with the inflow of commuters, and where there is a very high proportion of owner occupied dwellings, the houses are well endowed with the basic facilities, as is shown in Table 15.13 where Royston Urban District compares very favourably with the sub-regional and national averages. On the other hand, these latter figures reflect rural as well as urban conditions. There was clearly a substantial improvement over the sixties.

House prices are high in Royston. The average family house costs about £1,000–£2,000 more than in Cambridge, and £3,000–£4,000 more than in St. Neots. Land prices paid by developers have been high. Undoubtedly the main pressure comes from the high level of migration into an area where privately rented accommodation is scarce. It presents difficulties for the young local population who seek work and a house in the area, and the demands for rented accommodation may well rise.

Royston does not have a very exciting shopping centre. In 1967 there was just 100,000 square feet of floorspace, of which 60,000 square feet were devoted to selling. A quarter of the selling space was devoted to convenience goods. Turn-

Table 15.12 Total private household population: average household size, nominal overcrowding; 1961, 1966, 1971

Area	Year	Total private household population	Total number households	Average household size	% Persons living at over 1.5 pp room*
Royston UD	1961	5,887	1,883	3.13	3.3
	1966	6,275	1,940	3.03	†
	1971	8,155	2,725	2.99	1.5
Sub-Region	1961	321,849	106,401	3.02	3.4
	1966	353,085	121,260	2.91	1.0
	1971	395,540	138,205	2.86	1.0
Great Britain	1961	49.5M	16.2M	3.06	7.0
	1966	50.7M	16.9M	2.99	3.2
	1971	N/A	N/A	N/A	N/A

* A density of 1.5 persons per room is generally recognised as overcrowding.
Definition of room changed in the 1971 Census, effectively increasing the number of rooms.
† Based on less than 15 cases and subject to large sampling error.

Source: Census of Population, 1961, 1966, 1971.

Table 15.13 Private households with exclusive use of facilities: 1961, 1966, 1971

Area	Year	Total households	Number with exclusive use of facilities	% with exclusive use of facilities
Royston UD	1961	1,883	1,461	77.6
	1966	1,940	1,690	87.1
	1971	2,725	2,505	91.9
Sub-Region	1961	106,401	68,556	62.9
	1966	121,260	89,240	73.6
	1971	138,205	119,005	86.1
Great Britain	1961	16.2M	11.3M	69.4
	1966	16.9M	12.4M	72.9
	1971	Not available		

Notes 1961: cold water, hot water, fixed bath, w.c.
1966: hot water, fixed bath, inside w.c.
1971: hot water, fixed bath or shower, inside w.c.

Source: Census of Population 1961, 1966, 1971.

over, recorded at £0.66 million in 1950 and £1.52 million in 1961, increased by 50% during that period after making allowance for price changes. This was over a period when the urban district's population rose by 40%. Locally owned shops still dominate the main shopping street, which is relatively free of traffic, because of the traffic management scheme.

Our street surveys in Royston were conducted on Wednesday, October 27th and Saturday, October 30th 1971. On the market day 286 shoppers were interviewed. Just over a fifth of them (60) were also working in the Urban District. Half of these came on foot, and 25 of them by car. Almost half of the shoppers used cars, with 90 coming on foot and 30 by bus. None arrived by train.

The proportion of shoppers living within the town was a little over a half. In our survey we spoke to 148 residents, and 41 of these were working locally. Cars were not used by many of them. Three-quarters of the workers came on foot, as did 89 of the 107 who were there simply to shop. In all, of the 148 local people we identified, only 21 were using cars.

The rest of the EEA provided 109 shoppers in our sample. This comes to not much less than 40% of the total. It means that 90% of the interviewed shoppers on market day came from within the EEA. About a seventh of these people from the rest of the EEA worked in the town, and 14 of them came by car, leaving 2 who used the bus. Cars were the main form of transport for the non-working shoppers, too. Only one came from outside the town on foot. Sixty-six used cars and 26 came by bus. The story is substantially the same for those coming from further afield.

The total number of people interviewed on the Saturday was a trifle higher – 325. Once again, just over half lived within the town. A quarter of these were working on that day. Cars were used by local residents twice as frequently as on Wednesday.

The rest of the EEA gave rise to just over a third of the Saturday shoppers. The eight who worked in Royston came by car, as did three-quarters of the pure shoppers. Areas close to the EEA gave rise to 10% of our sample, and thirteen people came from more than 10 miles away. Three of these used the train.

Comparison with similar analyses for the other market towns shows that on the market day and on Saturday the town relied very heavily on its own residents and those of the rest of the EEA. On Saturday there was a slightly greater tendency for people living just outside the EEA to visit the town than on a Wednesday, but this was still much less than for the other market towns.

Table 15.14 Expenditure levels of non-working shoppers by origin (Royston)

Expenditure	Wednesday			Saturday		
	Local	EEA*	10 miles†	Local	EEA*	10 miles†
Low	19	8	5	15	4	0
Medium	67	30	7	45	23	8
High	62	71	8	105	87	25

* Elsewhere within the EEA
† Within 10 miles but outside EEA

Source: Cambridge Sub-Region Study–Shopping Surveys

Table 15.15 looks at the distribution of spending levels by mode of travel.

The household survey conducted in Royston shows that less than 90% of their spending on food is done locally. No other market town makes only 60% of its minor purchases or only 47% of its major purchases in local shops. In all three respects, Royston gets less support from its own residents than do the other towns that we have studied. On the other hand, it is also less well provided with shops. Cambridge is the main competitor, taking 19% of major expenditure by Royston households and 15% of the minor expenditure. Stevenage comes next, accounting for 11% of

Table 15.15 Spending levels of shoppers by day, mode and purpose (Royston)

Day	Expenditure group	Mode and purpose									Total work	Total non-work
		Car			Bus/train			Foot/cycle				
		Work	Non-work	Total	Work	Non-work	Total	Work	Non-work	Total		
Wednesday	Low	6	8	14	0	2	2	4	14	18	10	24
	Medium	8	35	43	1	7	8	15	41	56	24	83
	High	11	59	70	1	21	22	14	39	53	26	119
Saturday	Low	1	7	8	0	3	3	3	11	14	4	21
	Medium	6	33	39	0	5	5	9	26	35	15	64
	High	15	111	126	0	25	25	18	52	70	33	188

Source: Cambridge Sub-Region Study: Shopping Surveys

expenditure on major items and 7% of spending on minor items. Melbourn was frequently named as a place of purchase for a refrigerator or cooker, and for sugar and potatoes. The existence of one important supplier probably accounts for the former, while the purchase of food may be associated with a journey to work in that area.

In all, Royston is probably underprovided with shops, and the shopping patterns revealed by our surveys are to be expected. On the other hand, with such proximity to Cambridge and Stevenage, and a high proportion of commuters, the residents of the town will always be strongly tempted to shop outside it. The fact that most of the surrounding rural population is north of the town, and therefore already part of the way towards Cambridge, is another discouragement to the establishing of more shops in the town.

There are no large office blocks in Royston, and there is a heavy reliance on converted houses and rooms above shops. With any town that lies in a good commuter position there is always the possibility of office development, but so far there has been no sign of it on any significant scale.

In 1966 Cambridgeshire County Council judged that the main road linking Royston to Cambridge was overloaded, with about 3,000 passenger car units per sixteen hours on a single carriageway road. The continuation of the road (the A10) south of the town towards London was then considered to be of adequate capacity. The A14 running north towards Huntingdon was also deemed to be adequate, and so was the A505 reaching towards the centre of East Anglia: but the continuation of the A505 to the south west and the Hertfordshire new towns was overloaded.

Today the position on all of these roads is undoubtedly worse. Even more apparent, both to the townspeople and to the traveller, is the congestion within the town, and especially in Melbourn Street. The one-way re-routing of the A10 has helped, but it seems that nothing short of a by-pass will really ease the situation. Various proposals have been studied, and a by-pass has now been placed on the Department of the Environment's Priority Route Preparation List. Some relief is likely to be obtained when the M11 motorway attracts some of the traffic now using the A10. On the other hand, the increasing extent of commuting will add to the problems, especially at peak hour; and even those who go by train make their very noticeable contribution to congestion as they drive to and from the station.

Railway services to London are quite good; the fact that the line continues to Cambridge, with stops at Melbourn and Meldreth, Shepreth and Foxton, adds to its importance in the EEA. It takes people to work in the industrial centres of north Hertfordshire, as well as in London. There are plans to electrify the line as far north as Royston by 1975, which will reduce travel times and make the area more desirable to commuters. At present there are five trains each morning that commuters to the north Hertfordshire towns find convenient, and three that are useful for commuters to London.

There are three routes in the EEA which have daily bus services, Royston–Cambridge, Biggleswade–Cambridge and Royston–Hitchin. The Cambridge–Royston service runs along approximately the same route as the railway. Although the bus service is less frequent than the train service, it does have the advantage of stopping at all the intermediate villages, and of arriving in the centre of Cambridge. There is one bus which might act as a commuter service to Cambridge.

Recently the high operating costs have reduced the daily bus service on the Royston/Hitchin route to four buses. The Royston UDC Finance Committee have decided that it is not worth paying the subsidy necessary to prevent the cuts being made. This service runs roughly along the route of the railway.

In Table 15.16 we can see the extent to which the workers and residents of Royston used these various modes of transport for travelling to work in 1966. Just over a thousand residents of Royston used cars to go to work, and just over a thousand people working in Royston used cars to get to work. There is, of course, some double counting here. About 620 residents used cars to get to work outside the area. 390 residents used them to travel to jobs inside the urban district, and 630 people living outside the town used cars to reach their jobs inside it. In all, rather more than 1,600 people depended on the car for their journey to work.

Table 15.16 Workplace movements: modal split, 1966

Area		Total persons in employment	Percentage						
			Train	Bus	Car	Goods vehicle	Motor cycle	Pedal cycle	Other
Royston UD	Total persons in employment, resident in area	3,350	4.8	7.2	30.4	1.8	2.1	17.0	36.7
	Persons resident but working outside the area	1,070	15.0	15.9	57.9	3.7	2.8	2.8	1.9
	Persons resident and working in the area	2,230	–	3.1	17.5	0.9	1.8	23.7	53.1
	Persons working in the area, but resident outside	1,070	–	18.7	58.9	8.4	5.6	7.5	0.9
	Total persons working in the area	3,350	–	8.1	30.7	3.3	3.0	18.5	36.1
Cambridge MB	Total persons in employment, resident in area	42,330	0.8	13.9	24.0	2.1	5.0	34.2	20.0
	Persons resident but working outside the area	4,160	6.0	22.6	44.0	4.3	7.6	13.5	2.2
	Persons resident and working in the area	38,170	0.2	12.9	21.8	1.9	4.7	36.5	22.2
	Persons working in the area, but resident outside	17,310	3.6	25.5	50.4	4.7	5.9	7.9	2.1
	Total persons working in the area	55,480	1.3	16.8	30.7	2.8	5.1	27.6	15.8

Source: Census of Population 1966

Just as the train brings few shoppers to Royston, so does it seem to be of no importance in bringing workers: but about 160 people travelled by train to reach their work outside the town. A slightly higher number used the bus, which was used even more to bring workers into the town.

Any expanding town requires investment in its utilities, and at times sewage treatment plants and other 'lumpy' investments reach capacity and have to be augmented if growth is to continue. This has been, and is, true of Royston, but not to any unexpected degree.

While Royston has grown in a very remarkable way, it has also allowed itself to be spoilt. Perhaps the real villain has been through traffic. In trying to provide for it one-way systems have been introduced with little regard either to the ancient street pattern or to their commercial consequences. The delay in starting work on the by-pass has retarded both redevelopment and rehabilitation, and decay is common. Such redevelopment as there has been has had little regard to aesthetics. There are several listed buildings in close proximity, but between and around them is so much that is ugly or in the final stages of dereliction that one cannot help but feel a degree of despair or annoyance. This is a town that is surrounded by an extremely beautiful countryside, containing several villages of delightful character and appearance. As one approaches it there is an expectation of something that might perhaps have some of the quality of Saffron Walden. The expectation is rudely disappointed.

Current proposals suggest a further substantial growth of Royston during the remainder of this decade. It lies outside the strictly protected green belt, but inside the Greater Metropolitan Area. Pressures for its further development as a commuter town seem likely to intensify especially as transport improves. There are, however, substantial problems. Growth northwards passes from Hertfordshire to Cambridgeshire. There are resultant conflicts of interest over such matters as rates, sewage, street lighting and education. It emphasises once again the need to be more realistic in devising county boundaries. This is especially true here, when it is towards the north that there is greatest scope for expansion on landscaping considerations. The proposed by-pass is likely to impose another constraint. On the whole it does not seem to be a town at present suited to a high level of further expansion.

The 'story' of Royston and its EEA is one of the problems. Rapid growth in the urban and rural areas as a result of large inward migration has been accompanied by a massive traffic problem which has all but destroyed the character of the town and pressure to expand beyond the legally defined limits of the urban district. In the villages the original inhabitants have tended to become submerged by the newcomers. Throughout much of the EEA social cohesion and community spirit have been further eroded by the large number of workers commuting over fairly long distances to work. Royston itself is a town in limbo not knowing whether it should be orientated towards Cambridge or the large towns of north Hertfordshire.

Chapter 16

The St. Neots area

An old market town, still possessed of a very attractive market square and many ancient buildings of architectural merit, St. Neots is also a very rapidly growing town, mainly under the impetus of an agreement made with London County Council early in the sixties. It is seventeen miles west of Cambridge close to the A1, running from London to the north, and therefore with very good access to London and to places east of the Pennines. In 1964 the boundary of the Urban District was extended to include parts of the parishes of Eynesbury and Eaton Socon, thereby adding about 2,400 to its population. It is the only urban district in the employment exchange area, which contains 31 parishes and stretches into the administrative counties of Bedfordshire, Huntingdonshire and Cambridgeshire.

Between 1951 and 1961 the population of the area increased from 17,505 to 18,313 – a growth of less than 5%. In the next ten years there was a growth of almost 50% from 18,313 to 27,265. Half of this population is now living in the urban district. The population distribution and its changes are shown in Figure 16.1.

The reason for this remarkable expansion is the agreement with London, reached after the years of agricultural decline in the fifties, when population growth was very slow. It is a nomination agreement. Londoners wishing to move to St. Neots must have a job and be registered with the GLC and the Industrial Selection Scheme (ISS). Persons so qualified may then be nominated by the GLC to go to St. Neots. However, it is up to the local council to decide on the numbers that it wishes to take, and so on its upper limit of growth. The council is also responsible for designing and building the houses in which the nominees will be accommodated, and for the preparation of industrial sites. The whole of London has provided a catchment area.

Tables 16.1 and 16.2 compare the area's growth with that experienced in the sub-region, East Anglia and England and Wales. During the twenty years the proportion of the population administered by the Urban District rose from 40% in 1951 to 56% in 1971. The next largest settlement in the area is Little Paxton, with a 1971 population of 1,693, followed by Kimbolton (1,136), Roxton (1,098) and Great Staughton (1,042). The parishes with population increases have tended to be in the north west of the exchange area, or on its extreme east. During the fifties many of the rural parishes lost population, as agricultural employment declined,

Figure 16.1 St. Neots: Population distribution and change; 1951-61, 1961-71

Table 16.1 Total civilian population, 1951–1971

St. Neots EEA	Population		% growth	Population	% growth
	1951	1961	1951–61	1971	1961–71
Urban Areas	6,990	8,070	+15.4	15,280	+89.3
Rural Areas	10,515	10,243	−2.6	11,985	+17.0
EEA Total	17,505	18,313	+4.6	27,265	+48.9

Sources:
Registrar General's Mid-Year Civilian Estimates
Census of Population 1961
Local Population Estimates

Table 16.2 Population changes, 1951–1971

St. Neots EEA	% growth	% growth	% growth
	1951–61	1961–71	1951–71
EEA	4.6	48.9	55.8
Sub-Region	10.6	21.5	34.4
East Anglia	7.4	12.9	21.2
England and Wales	3.4	3.7	11.4

Sources:
Registrar General's Mid-Year Civilian Estimates
Census of Population 1961
Local Population Estimates

but, partly under the impetus of the TDA scheme for the Urban District, and partly because of a growth of settlement in areas close to good communications as increasing car-ownership and rising urban costs encouraged commuting, this decline in population was reversed in the next decade. Over the whole period of twenty years, twenty-three parishes gained population, most of them having a growth of at least 5%, while eight parishes declined, seven of them by 5% or more.* It must, however, be kept in mind that many of these parishes have very small populations and that large percentage changes may arise out of small numerical changes.

The population of East Anglia is growing rapidly, and almost two-thirds of its increase in the sixties came from a net immigration of over 120,000 persons as can be seen from Table 16.3. Part of this arose from planned expansions of one kind or another. St. Neots depended on immigration for over 80% of its population increase of 7,200 in this period; and the Rural District increased its population by nearly 3,000 of which 70% was net immigration, compared with a net emigration of 400 in the previous decade. Similar reversals of flow have occurred in other rural parishes.

The extent of this migration as a factor in population change is reflected in the structure of the population as well as in its size. The age pyramids in Chapter 9 shows how the age distribution of the residents of St. Neots Urban District reflects the immigration of a large number of young adults and children. There has also been a reduction since 1961 in the preponderance of females, due partly to the balanced

*To some extent these results can be explained by boundary changes, but the general drift is not due to these.

Table 16.3 Natural change and migration,* 1951–1971

Area	Components of change	1951–61	1961–71
St. Neots UD	Natural	395	1,320
	Migration	681	5,890
	Total	1,076	7,216
	Migration as % total	63.3	81.6
St. Neots RD	Natural	392	797
	Migration	−412	2,123
	Total	−20	2,921
	Migration as % total	–	72.7
East Anglia	Natural	64,636	83,910
	Migration	38,121	120,520
	Total	102,757	204,430
	Migration as % total	37.1	58.9

* Total Civilian Population

Source: Registrar General's Estimates

distribution of migrants in this respect. The data are summarised in Table 16.4.

Under the Town Development Act agreement, St. Neots is expected to reach a population of 30,000 within a reasonable time. No terminal date is specified, but the St. Neots Town Map of 1970 indicates an expected population of 26,000 by 1981, which implies a doubling of the 1968 population, with the help of a net immigration of about 10,000. There is no reason to doubt that this will be achieved; and it could well be that, if the authorities wish to encourage it, the population of St. Neots might rise substantially above 30,000 before the eighties are over. Even now this town has good access to London and the north. A new road linking the M1 to the A1 seems likely to improve its communications with the Midlands. Along with Huntingdon, St. Neots is likely to become increasingly important both as one of the country's gateways into East Anglia and as a strategic location within commuting distance of London yet well on the way from London to large provincial centres.

Some of the rural areas around St. Neots are similarly attractive, but planning policy does not favour growth in all of them. Most of the Huntingdonshire villages within the EEA

Table 16.4 Age structure 1961, 1966, 1971: total enumerated population

Area	Year	% distribution by age and sex											
		0–14		15–24		25–44		45–64		65+		Total	
		M	F	M	F	M	F	M	F	M	F	M	F
St. Neots UD	1961	12.2	12.2	6.1	6.5	12.8	13.2	12.4	12.3	4.6	7.6	48.1	51.8
	1966	14.0	14.9	7.3	7.5	13.5	12.8	10.8	9.9	4.2	5.2	49.8	50.3
	1971	15.9	15.2	6.6	7.8	14.6	13.8	8.6	8.5	3.6	5.4	49.3	50.7
England and Wales	1961	11.7	11.2	6.6	6.5	13.1	13.0	12.3	13.5	4.6	7.3	48.3	51.5
	1966	11.8	11.2	7.3	6.9	12.5	12.4	12.1	13.1	4.6	7.6	49.3	51.2
	1971	12.2	11.6	7.4	7.1	12.3	12.0	11.7	12.5	5.0	8.1	48.7	51.3

Source: Census of Population 1961, 1966 and 1971

are at present within the 'minor growth' or 'expansion contained' categories. Only Little Paxton is scheduled for major growth. None of the Cambridgeshire villages is intended to have anything other than minor growth. Bedfordshire's policy is under review.

On the other hand, as St. Neots grows there is likely to be pressure from some of its residents, as they grow older and more prosperous, to seek houses a little outside the town, just as people at present living elsewhere may wish to settle close to the town rather than in it. With the planned expansion of Huntingdon so close at hand, and so intimately linked to St. Neots by the A1, it is difficult not to see this pair of towns becoming important magnets in a corridor of growth, unless policy severely intrudes.

The post-war employment changes in the employment exchange area reflect both the agricultural decline of the fifties and the industrial expansion of St. Neots associated with the Town Development Act agreement. The broad impact on employment of the combination of this policy and the decline of agricultural employment is shown in Table 16.5 where we present data for 1951 and 1971. In round terms, the number of jobs in the exchange area increased by nearly three-quarters rising by almost 3,000. Employment in agriculture halved, to become a tenth of the total, but still very significant. Manufacturing employment increased five-fold, becoming greater than employment in services, which is still very low compared with national and regional averages. Between them these two sectors account for over 80% of all jobs. Construction activity, expectedly high in a growing area, doubled by 1970 but then fell back.

Table 16.6 shows that in both the fifties and the sixties female employment grew much faster than male employment. Female activity rates were static and very low in the fifties, but rose very rapidly in the early sixties in both the urban and rural parts of the EEA. Since 1966 the urban rate has grown further, almost equalling the national rate; but the rural rate has fallen slightly. Nevertheless, part of this reflects the age structure. If one makes allowances for this, female activity rates in the urban area are still on the low side.

It is also apparent from Table 16.6 that employment has grown much faster than population; both in the fifties (when there was no TDA agreement) and in the sixties. In the fifties this expansion of employment seems to have benefited both local people and those living further away. Journey to work statistics for the urban district show that between 1951 and 1961 the percentage of economically active residents who worked locally rose from 69.7 to 77.0. (The absolute numbers are shown in Table 16.7A). At the same time the number of persons travelling into the Urban District in order to work rose from 706 to 840 (see Table 16.7B). The number travelling from Bedfordshire rose from 405 to 580.

Table 16.5 Employment Structure,* 1951 and 1971

Employment sector	1951				1971				
	St. Neots EEA		Sub-Region	GB	St. Neots EEA		Sub-Region	East Anglia	GB
	No.	%	%	%	No.	%	%	%	%
Agriculture	1,420	34.6	17.8	3.8	760	9.3	6.7	8.0	1.7
Manufacturing	645	15.7	21.5	44.2	3,188	39.2	31.7	34.2	40.7
Construction	411	10.0	8.0	6.4	866	10.6	7.7	7.3	6.2
Services	1,626	39.6	52.7	45.6	3,315	40.7	53.8	50.2	51.3
Total	4,106	100	100	100	8,137	100	100	100	100

Note: Percentages may not total 100 due to rounding and non-specified category
* Total insured employees

Source: Department of Employment, E.R.II

Table 16.6 Employment Growth* in St. Neots EEA, 1951–1971 (%)

	1951–1961			1961–1971			1951–1971		
	St. Neots EEA	Sub-Region	GB	St. Neots EEA	Sub-Region	GB	St. Neots EEA	Sub-Region	GB
Male	15.6	9.6	6.5	51.2	14.9	-1.9	74.7	25.9	4.9
Female	51.1	21.4	12.6	72.9	28.4	7.2	161.2	55.8	22.0
Total	25.2	13.4	8.6	58.3	19.5	1.3	98.2	35.5	10.7

* Total insured employees

Source: Department of Employment, E.R.II

Table 16.7A The place of work of all persons resident in St. Neots UD

St. Neots area	1951		1961		1966	
	Number	% of total economically active residents	Number	% of total economically active residents	Number	% of total economically active residents
Total residents economically active	2,059	100	2,350	100	4,880	100
(i) Working locally	1,436	69.7	1,810	77.0	3,470	71.1
(ii) Commuting out	623	30.3	540	23.0	1,410	28.9
viz:						
Bedford MB			60	2.6	210	4.3
Bedford RD	360	17.5	210	8.9	490	10.0
Bedford other			20	0.8	260	5.3
St. Neots RD	99	4.8	80	3.4	250	5.1
Huntingdon MB	37	1.8	–		70	1.4
Huntingdon RD	–		–	4.7	70	1.4
Huntingdon other	–		60	2.6	–	
Biggleswade RD	–		–		60	1.2
Cambridgeshire	–		–		50	1.0
Chesterton RD	48	2.3	–		–	
Other	79	3.8	110	4.7	–	

Table 16.7B The place of residence of all persons working in St. Neots UD

St. Neots area	1951		1961		1966	
	Number	% of total persons working in St. Neots	Number	% of total persons working in St. Neots	Number	% of total persons working in St. Neots
Total persons working in St. Neots	2,142	100	2,650	100	4,360	100
(i) Resident locally	1,436	66.9	1,810	68.3	3,470	79.6
(ii) Commuting into St. Neots	706	33.1	840	31.7	890	20.4
viz:						
Bedford RD	405	18.8	560	21.1	80	1.8
Rest of Beds.	–		20	0.8	70	1.6
St. Neots RD	202	9.4	110	4.2	460	10.5
Huntingdon MB	–		–		60	1.4
Huntingdon RD	–		–		80	1.8
Rest of Hunts.	–		40	1.6	–	
Cambridge MB	–		–		50	1.1
Chesterton RD	–		25	0.9	50	1.1
Northants	–		50	1.9	–	
Others	99	4.6	351	1.3	40	0.9

Source: Censuses of Population 1951, 1961, 1966

Analysis of the journey to work data for 1966 – the latest available – is very difficult because of the boundary change in 1964. It does appear, however, that while 80% of the people working in the expanded urban district lived there the proportion of residents who worked locally did in fact fall, quite independently of the boundary change. In 1961 there were 540 residents of old St. Neots working outside the town. In 1966 the estimated number of commuters out of the expanded town was 1,410. One factor contributing to this seems to have been a supply of comparatively cheap private sector housing that has encouraged people working elsewhere to live there.

Unemployment is not a serious problem in the EEA, which has percentages well below the regional averages, themselves below national averages. The importance of agriculture and construction, accounting between them for a fifth of the total employment, means that there is a distinct seasonal variation. Between 1961 and 1966 the January percentage unemployment was 0.9 compared with the July percentage of 0.4. Between 1967 and 1971 the winter percentage averaged 1.7, and the July percentage 1.3. We may note that while the rural parts of the employment exchange area account for about a quarter of the total employment, there are no really large employment centres in these rural areas.

The growth of local employment on a large scale engendered by a TDA scheme is worthy of some further comment. Some indication of the activities of the firms established in St. Neots is given by Table 16.8 which shows the industrial classification of 25 firms covered by a survey conducted by Huntingdonshire County Council. These firms accounted for about 50% of the total employment in the Urban District.

Table 16.8 Survey of firms in St. Neots UD Classified by 1968 SIC Order

Order	Number
Food, drink and tobacco	2
Chemicals	1
Mechanical engineering	6
Instrument engineering	1
Metal goods not elsewhere specified	2
Textiles	1
Clothing and footwear	2
Bricks, pottery, glass, cement, etc.	1
Timber, furniture, etc.	1
Paper, printing and publishing	4
Other manufacturing industries	3
Not specified	1
Total	25

Source: Hunts. CC Planning Department

Industrial sites for new firms are located on estates. These have been developed on the edge of the town in two main areas – in the South West along the boundary between Bedfordshire and Huntingdonshire, and in an area west of the railway line, that forms a physical barrier to the east of the town, and bisected by the main road running to Cambridge.

Sites have been of two types. Some have been sold freehold to an incoming firm which has built the factory to its own requirements, with only the basic site preparation already done. Others have had factory units built on them by the UDC which has then let these units on lease. It is expected that, for financial reasons, most of the future developments will be of the former type. Over the years there has been substantial fluctuation in the amount of new floorspace completed, as is shown in Table 16.9. This, of course, is reflected to some extent in the numbers of new jobs becoming available, but there is often a lag between completion and operation, especially when the factories have been UDC units. For example, in 1971, the number of firms expressing interest in going to St. Neots was zero. The high floorspace figures were due partly to the erection of units without prospective tenants and partly to expansion by existing firms.

Table 16.9 Annual completion of factory floorspace

Year	Floorspace completed sq. ft.
1961–64	173,000
1965	68,000
1966	36,000
1967	65,000
1968	26,000
1969	128,000
1970	90,000
1971	223,000

Source: St. Neots UDC

Only two TDA industrial sites have changed hands since their original occupation. This is an encouraging figure. Eleven of the 25 surveyed factories were independent firms with their head office in St. Neots. Five were subsidiaries of firms with head offices elsewhere in the UK and another five were described as branches of such firms. Four were subsidiaries of overseas firms.

Industrial employment outside the Urban District is dominated by small light industry, most of it in independent establishments.

St. Neots now has a sufficiently large and varied light industrial base for it to become attractive to employers of a certain kind, not because of any pool of surplus labour, but because it now has a good supply of trained labour. Operating against St. Neots is its very low unemployment level, but this is countered by the low female activity rate when allowance is made for age structure. As long as the TDA scheme is in operation a prospective employer would obviously try to make use of it; and the attraction of a job and a modern house in the same area will always help keep the labour force growing. As growth goes on – and there is every reason to suppose that it will unless remarkable changes of policy or attitude occur – then there is likely to be an increasing drift out of agriculture, which is still a very important industry in the rural areas, concentrating on cereals but also growing important crops of vegetables. There is also likely to be some growth in service employment. The Town Map allocated just over 50 hectares for new industrial use between 1968 and 1981, mainly to the south-west of the town.

The rapid growth of population has been accompanied by a great deal of house building. In 1951 the Urban District had 1,425 occupied dwellings. By 1961 this had risen to 1,836. The figure of 4,870 for 1971 is not directly comparable because of boundary changes, but these probably added no more than 750 houses to the total; although, of course, they did enlarge the area to which the data relate. In Table 16.10 we show the numbers of houses built each year since 1960. The peak output of 517 houses, equally divided between public and private sectors, in 1965 was not approached again, although in 1970 the private sector passed its highest figure for the sixties.

Table 16.10 St. Neots – housing construction: completions, demolitions and closures, 1956–72

Year	Construction		
	Public	Private	Total
1956	–	38	38
1957	50	2	52
1958	8	3	11
1959	12	17	29
1960	64	6	70
1961	36	23	59
1962	90	107	197
1963	95	46	141
1964	94	113	207
1965	262	255	517
1966	144	126	270
1967	151	99	250
1968	102	144	246
1969	164	184	348
1970	108	280	388
1971	155	267	422
1972	229	296	525
Total	1,764	2,006	3,770

Source: Department of Environment: Local Housing Statistics

The division between public and private housing has some interesting features. In the urban district where the TDA agreement operates one might have expected a higher proportion of the building to have been public. In fact, private developers have been very happy to build on land allocated for residential use, and many of the people who have come north to take up a job have preferred to buy a house than to rent one. The Urban District Council has designed the extensive new housing areas so that small groups of local authority houses are mixed in with similar groups of privately built houses. The casual visitor can easily fail to distinguish between them, especially if the houses were built in the earlier periods of expansion. More recently cost yardsticks have forced the Urban District to build longer terraces and 4–5 storey blocks, rather than detached and semi-detached dwellings and four-house terrace blocks. The public sector housing is built primarily for letting, but freeholds have been sold. In 1970 applications for purchase were running at between 20 and 30 a month. Plans have been prepared for the building of a housing estate by the local authority for direct sale to Londoners who will be treated as TDA migrants so as to ensure the UDC's subsidy. The general approach seems to be one of providing a good mix of housing, taking proper advantage of existing powers and facilities, but imposing as few constraints on tenants and owners as possible. Table 16.11 shows the very dramatic rise in the proportion of houses in the urban district that were owner occupied in the early sixties.

Between 1961 and 1966 average household size fell slightly but overcrowding in the Urban District went up. As one would expect with so much new building, the proportion of houses with all of the standard amenities was high. Tables 16.12 and 16.13 give more detail. Demolition has been low, averaging about 8 houses per annum over the period 1955–1970. Less than a tenth has been in clearance areas. Recently some very neglected, if once substantial, housing on the river has been demolished, and the river frontage is now opened for improvement.

In early 1972 there were 130 of the TDA houses standing empty. Such a situation had never before occurred. It was attributed to the necessity of continuing with large housing contracts already under way, and to the 1971 recession leading to a decline in the number of new firms moving into the area. A recent study by Bedfordshire County Council suggests that house prices are low in St. Neots, and other

Table 16.11 Tenure structure %

Area	Year	L/A or new town rental	Owner occupied	Private rental	Tied and other
St. Neots UD	1961	39.8	27.0	21.9	11.3
	1966	39.7	40.3	14.3	5.7
	1971	41.2	47.0	11.7	0.1
Sub-Region	1961	25.7	38.0	23.7	12.8
	1966	26.9	4.9	19.9	11.3
	1971	29.0	46.6	24.2	N.S.
GB	1961	25.5	40.6	27.5	1.8
	1966	28.7	46.7	19.2	5.4
	1971	30.7	50.1	14.2	5.0

Note: 1971 for permanent dwellings only. All categories allocated except 'not stated'

Source: Census of Population

Table 16.12 Total private household population: Average Household size, nominal overcrowding: 1961, 1966, 1971

Area	Year	Total private household population	Total number households	Average h'hold size	% persons living at over 1.5 pp room*
St. Neots UD	1961	5,488	1,813	3.03	2.6
	1966	10,000	3,350	2.99	3.2
	1971	15,010	4,790	3.13	1.3
Sub-Region	1961	321,849	106,401	3.02	3.4
	1966	353,085	123,330	2.86	1.0
	1971	395,540	138,205	2.86	1.0*
GB	1961	49.5M	16.2M	3.06	7.0
	1966	50.7M	16.9M	2.99	3.2
	1971	Not Available			

* A density of 1.5 persons per room is generally recognised as overcrowding. Definition of room changed in the 1971 Census, effectively increasing the number of rooms.

Source: Census of Population, 1961, 1966, 1971

Table 16.13 Private households with exclusive use of facilities: 1961, 1966, 1971

Area	Year	Total households	Number with exclusive use of facilities	% with exclusive use of facilities
St. Neots UD	1961	1,813	1,182	65.2
	1966	3,350	2,750	82.1
	1971	4,835	4,475	92.6
Sub-Region	1961	106,401	68,556	62.9
	1966	121,260	89,240	73.6
	1971	138,205	119,005	86.1
GB	1961	16.2M	11.3M	69.4
	1966	16.9M	12.4M	72.9
	1971	Not Available		

Note:
1961: cold water, hot water, fixed bath, w.c.
1966: hot water, fixed bath, inside w.c.
1971: hot water, fixed bath or shower, inside w.c.

Source: Census of Population 1961, 1966, 1971

sources confirm this. It seems clear that there needs to be a very cautious approach to the scale of housing provision, but, as was recently shown in Haverhill, a pool of unoccupied housing can be mopped up almost overnight by the arrival of one more firm. Empty houses in a town with a deliberate expansion policy that has been tested and found successful are not the same kind or degree of liability as they would be elsewhere. The Town Map has allocated about 175 Hectares for residential development between 1968 and 1981. This suggests roughly 3,500–4,000 houses. Most of it will have to occur west of the river, in the Eaton Socon area.

In the rural areas of the EEA the story is less spectacular, but not uninteresting. St. Neots Rural District saw the erection of 1,351 houses between 1955 and 1970, with many of them in expanding Little Paxton and over 80% of them built privately. There was also about twice as much demolition as in the urban district. In recent years some of the TDA scheme tenants of houses in the Urban District have moved out to privately built houses in Paxton and other villages. The EEA is in this way coming under the influence of the town's expansion.

The main shopping area in St. Neots is in and around its old Market Place. The total retail turnover increased by almost 50% (at constant prices) between 1950 and 1961, and the rapid growth of population in the sixties will have ensured a further substantial increase in that decade, even though official data cannot yet confirm it. What is revealed by official statistics is a surprisingly low rate of growth between 1961 and 1966 when this population increase is kept in mind. It suggests that perhaps the new population has been more inclined than the older population to spend a large part of its income in Bedford and other places outside the EEA. It may also be due to increasing car-usage, especially since the proportion of local shoppers not using cars was considerably higher when we conducted our street survey than it was in other market towns. Perhaps the people who have cars are more likely to go elsewhere. All of this underlines a common observation in the town that it is not a very good shopping centre.

The expansion of the town under the TDA scheme has been deliberately focussed on the existing centre, with new housing development radiating from it so that it is easily accessible.

Development plans intended to enlarge and to improve facilities keep Market Place as the focal point, but their implementation waits for certain road developments mentioned below. As it now stands, the town's shopping centre is pretty clearly inadequate for the demands of its local and adjacent population, as is revealed by our own studies.

In 1970 the recorded total sales and storage floorspace was about 128,000 square feet. Two thirds of this was devoted to sales of durables (which in 1961 accounted for half of total sales).

On Thursday, October 28th, 1971 we interviewed 224 people shopping in the streets of St. Neots. Just under a third of these (72) came from within the Urban District. Only 11 people, representing 5% of those interviewed, were working there. (These proportions may be contrasted with those of Ely where over 42% of the Thursday shoppers lived locally, and 10% of them also worked there). Fewer than one sixth of the local shoppers used cars. The rest of the EEA supplied 97 shoppers, representing over 43% of the total. (This means that, as for Ely, almost exactly three-quarters of the town's shoppers came from the employment exchange area, which of course, includes the town itself). A tenth of those living outside the town but within the EEA worked there, and just over 40% of shoppers from the outer part of the EEA came by car. Shoppers from areas outside the EEA but within 10 miles of the town totalled 43, representing 20% of the total. Cars were used by 35 of them. More remote areas provided only 12 shoppers, of whom 10 came by car.

On Saturday, October 30th, the number of interviewed shoppers was 259 and 40% of these (104) lived locally. Thus the proportion of local shoppers was higher on the Saturday, which reverses the pattern established for example in Ely. It suggests that St. Neots is not a great attractor of trade when compared with other towns in which the rural population may do their Saturday shopping. A quarter of the local shoppers used cars. The rest of the EEA supplied 111 shoppers, which is about the same proportion of the total as on Thursday, and three-quarters of these used cars, which is a much higher proportion than on Thursday. Areas just outside the EEA supplied 24 shoppers, almost all by car, and more remote areas sent 20 shoppers, 80% of them using cars.

It will have been noted that on the Saturday not only did a higher proportion of the shoppers come from within the town than on Thursday, but also a larger fraction of these local shoppers used cars. There has been evidence from other market towns that people using cars seem to be high spenders, but that this is attributable mainly to the fact that they tend to come from further afield and the spending is related to distance rather than to car usage. In the case of St. Neots we find that on the Thursday almost 70% of those who came by car were high spenders, compared with only 55% of those who came by foot or cycle. But on Saturday the percentage of high spenders amongst those using cars was down to 59 and exactly the same as the percentage amongst those who used their feet. Taken with the point just made about the large number of local people using cars on the Saturday, this seems to provide an interesting confirmation of the relationship between spending and distance. There is, however, another twist to the story. Table 16.15 shows that people from within the EEA who used cars on Saturday were less likely to be high spenders than those who shopped on Thursday. People coming from adjacent areas were more likely to be high spenders on Saturdays, but the evidence for the more remote areas is not strong enough to support any

Table 16.14 Spending levels of shoppers by day, mode and purpose (St. Neots)

Day	Expenditure group	Mode and purpose									Purpose	
		Car			Bus/train			Foot/cycle				
		Work	Non-work	Total	Work	Non-work	Total	Work	Non-work	Total	Work	Non-work
Thursday	Low	1	11	12	–	6	6	–	15	15	1	32
	Medium	1	17	18	–	9	9	5	20	25	6	46
	High	3	64	67	1	21	22	9	41	50	13	126
Saturday	Low	–	18	18	–	1	1	–	9	9	–	28
	Medium	–	42	42	–	6	6	–	31	31	–	79
	High	2	85	87	–	6	6	3	56	59	5	147

Source: Cambridge Sub-Region Study Shopping Survey.

Table 16.15 Origins of car users in 'high spending' category (St. Neots)

Origin	Thursday		Saturday	
	Total car users	No. in 'high spending' category	Total car users	No. in 'high spending' category
Local	11	10	25	14
Rest of EEA	41	30	84	50
Close areas*	35	21	22	15
Remote areas*	10	6	16	8

Source: CSRS Shopping Survey. Note: *See text for definition

conclusions of this kind. The tendency of the EEA car users to spend less on Saturdays is in marked contrast to the behaviour of those who came by foot or cycle. On Thursday 41 of the 76 shoppers (excluding workers) who came in one of these ways were high spenders, while on Saturday there were 96 people shopping on foot and 56 of these were high spenders. This indicates, if anything, a very slight tendency for people on foot to be more likely to be high spenders on a Saturday than on a Thursday.

A little more light is shed by the household survey conducted in 1971. This shows that the households of St. Neots did 90% of their food spending locally. Cambridge was very unimportant in their spending patterns. Bedford took 12% of their minor expenditure and 17% of their major expenditure. It is pretty clear that on Saturdays, when more cars are normally available for shopping, those who wanted to make large purchases drove, or were driven, to Bedford.

We have already commented upon the strategic location of St. Neots, close to the A1, which thankfully now by-passes Eaton Socon, and astride the A45. The latest available data suggest that the A1 is capable of carrying more traffic than it does in the vicinity of St. Neots, but that the A45 is overloaded. There is no doubt that east-west traffic going through the town is disastrously heavy in environmental terms, and frustratingly slow to the driver.

The railway is also important, with half a dozen trains daily into London. Improvements in the service would enhance the area for commuters, especially since at present there is only one direct train coming back from London at a time acceptable to them. Electrification to Peterborough is planned.

Movement within the EEA is fairly easy provided that one has a car. The roads from the outlying villages are good, and rural car ownership is high. The bus services seem to be well-used, especially on market day. However, while there are bus links from St. Neots to Bedford, Cambridge, Brampton and Huntingdon and Godmanchester, the services are not frequent. Much of the area lacks good bus services, and a large proportion of the rural sector is remote from any daily service. Improvements are under discussion.

Journey to work data show that two-thirds of the 1,410 persons recorded in 1966 as living in the Urban District but working outside it used a private motor vehicle, while nearly 60% of the 890 coming to work from outside the area also did so. At more or less the same time of day, the roads also carried about 850 private vehicles belonging to the local residents who worked within the area. In all something like 2,300 private motor vehicles of local origin or destination are added to the through traffic each morning and night by people going to work.

Proposals for a by-pass are under consideration and there is a considerably criticised one-way system in South Street and Brook Street. There is also a scheme for a ring road, while it is also possible that a link road between the A1 and the M1 will pass close to the town. With major road developments of this kind under active consideration it is difficult to make some of the decisions that are becoming urgent. St. Neots is a historic town, listed by the Council for British Archaeology as meriting special consideration in any planning or redevelopment proposals. The large Market Place is impressive both for its size and for its south and west sides, which are listed as a group on the Statutory List. Some of the individual buildings are of importance or interest in their own right, but here, in the Market Place, it is their overall combined effect that matters. The northern side where some of the principal shops are to be found, will probably come under substantial pressure for redevelopment, and since much of that side is already undistinguished it is possible that such pressure will win. If it does, it will be very important to ensure a quality of design, and a scale of development, that is worthy of the rest of this square. There is abundant room for a major extension of shopping facilities in other streets where it will be less of an environmental problem.

The town is growing, and despite the attraction of Peterborough, and possibly of expansion elsewhere in the Sub-Region, it is likely to be high on the list of attractive locations for certain kinds of industry. It is, after all, in a very good location. So far the growth has been achieved in a way that has been highly successful, both in physical terms and in community terms. But physical constraints are now becoming important. The river, with its substantial flood-plain, presents a barrier that it is difficult to overcome in places. The A1 presents another barrier, as does the administrative boundary between Bedfordshire and Huntingdonshire, which is to be maintained under the pending re-organisation. To the east, the railway line presents another obstacle to expansion. It is, however, on the other side of this line that any further growth should probably take place, both to the south and to the north of the main road to Cambridge.

Chapter 17

The Huntingdon and St. Ives area

A narrow thirteenth century bridge crossing the River Ouse fifteen miles to the North West of Cambridge joins two ancient towns that now form the Borough of Huntingdon and Godmanchester. It lies almost equidistant from Cambridge, Peterborough and Bedford. Four miles to the east, another crossing of the Ouse identifies the smaller municipal borough of St. Ives. These two ancient boroughs, each a market town, are the foci of the employment exchange area that completes our circuit of the outer parts of the sub-region. It is well placed in terms of communications; it has a long cultural and agricultural history; and its principal town is expanding apace under the impetus of a TDA agreement. It contains 54 parishes, located in four rural districts, stretching into two counties that are shortly to become one.

The statistical analysis is of an area that once was two exchange areas (one centred on each borough). It is referred to briefly as the Huntingdon area. Its analysis is complicated by the presence of several institutions and military establishments. There are four of particular importance. At Alconbury is a United States Air Force base. A Royal Air Force Station exists at Wyton. Brampton houses administrative headquarters for the Royal Air Force. At Papworth there is an important specialist hospital with associated industry.

The rate of growth of population in this area is more than double the rate experienced by the sub-region. The Municipal Borough of Huntingdon and Godmanchester has more than doubled its population since 1951, partly because of the TDA scheme. The Municipal Borough of St. Ives has more than doubled its population, without a TDA scheme. Several of the rural areas have grown for one reason or another, and the area's share of the sub-region's population is now 15% compared with 10% in 1951. The principal data for 1951, 1961 and 1971 are shown in Tables 17.1 and 17.2.

It is evident from these tables that between them the two towns accounted for about 40% of the area's population in 1971, compared with 33% in 1951. The rapid expansion of the Borough of Huntingdon and Godmanchester is due in part to the TDA scheme signed in 1958. The original provision was for 1,150 houses, which would correspond to about 4,000 persons if we adopt the slightly high density of persons per dwelling then associated with TDA schemes. In 1965, by when the scheme had been operating for four years, the agreement was amended to provide a total of 2,600 houses by the mid-seventies. It was intended that about 150 of

Table 17.1 Total civilian population, 1951–1971

	Population		% growth	Population	% growth
	1951	1961	1951–61	1971	1961–71
Huntingdon and Godmanchester	7,710	8,730	13.2	16,570	114.9
St. Ives	3,130	4,160	32.9	7,310	133.5
Rural areas	22,139	26,578	20.0	35,543	60.5
EEA total	32,979	39,468	19.7	59,423	80.2

Sources:
Registrar General's Mid-Year Civilian Estimates
Census of Population 1961
Local Population Estimates

Table 17.2 Population changes, 1951–71

	% growth	% growth	% growth
	1951–61	1961–71	1951–71
Huntingdon EEA	19.7	50.6	80.2
Sub-Region	9.8	19.5	31.2
East Anglia	7.4	12.9	21.2
England and Wales	5.4	5.4	11.7

Sources:
Registrar General's Mid-Year Civilian Estimates
Census of Population 1961
Local Population Estimates

these would be for local need, leaving 2,450 for GLC nominated tenants. By June 1971 three-quarters of these houses (1,839) had been completed, and 78 more were under construction. In all, 1,917 houses were thus finished or well under way, accounting for about 6,600 people.

Despite this increase, Huntingdon has not grown as fast as the other TDA towns of St. Neots and Haverhill, or, indeed, as fast as the neighbouring borough of St. Ives that has no TDA provision. Despite its lack of railway access, Haverhill is nearer to London, which probably makes it in some sense more attractive to immigrants. While it is also in other respects less accessible than Huntingdon, it does have the advantage of having been quicker off the mark in securing a TDA agreement. St. Neots, only a few miles down the road from Huntingdon, has attracted migrants from Bedford where housing is dearer. It is also just a little nearer to London, and has attracted an important independent migration, possibly associated with, but not part of, the TDA expansion. This is something that Huntingdon has failed to do. Perhaps it is because the very close but more rural St. Ives has been more attractive, and has taken the independent migrants that might otherwise have gone to Huntingdon, or to its rural hinterland.. Since 1961 there has been a marked acceleration of growth in and around this smaller borough, and along the main lines of communication, especially the A1 at Sawtry, Brampton and Buckden. One measure of the extent of independent migration is the disparity between the level of migration and the number of TDA houses built; this was relatively low in Huntingdon. On the other hand, St. Ives and its rural district have shown high levels of independent immigration over the sixties, even though the Rural District had a net outflow in the fifties. Huntingdon Rural District has derived little from migration.

On the whole, the larger settlements have grown fastest, while the smaller predominantly agricultural villages, especially those to the west of the A1, and in the north, bordering the Fens, have either changed little or declined. This is partly due to local employment opportunities and to their accessibility, and partly to the Huntingdonshire policy of concentrating larger scale development at selected centres. Some villages close to the towns, such as the Hemingfords, have grown as dormitory areas.

A linear bias in the population distribution is evident from Figure 17.1. A belt composed of nineteen parishes running along the line of the A1, south to Huntingdon, and then curling east along the Ouse through St. Ives, contains 80% of the rural population. If Huntingdon and St. Ives are included, we find that 88% of the area's population lives within it. The rest of the area, being a part to the west of the A1, a narrow strip in the north, and a group of parishes in the extreme south-east, consists mainly of small isolated agricultural settlements. The total population of the area was 59,400 in 1971 compared with 33,000 in 1951.

This is a growth that is expected to continue. Between mid-1971 and around 1975 almost 700 more TDA houses are to be completed. When this has been done then, without taking account of any other factors, the population of Huntingdon will be about 2,700 above the 1971 Town Map figure. About another 6,000 independent immigrants are expected during the decade, and natural increase is predicted at about 1,700. In all, an increase of about 10,500 is expected in the town's population, which is expected to be about 27,000 in 1981. Whether this will come about is uncertain – the biggest question mark arising out of independent migration, which has not been notable in Huntingdon in recent years. The predictions for St. Ives have more support from history. A growth of 4,100 between 1971 and 1981 has been predicted by the County Council with 3,200 due to net independent immigration. There seems to be a strong local school of thought in favour of rapid growth. If the proposals and predictions contained in the various Town Plans and other documents materialise we can expect the EEA's population to be 85,400 in 1981.

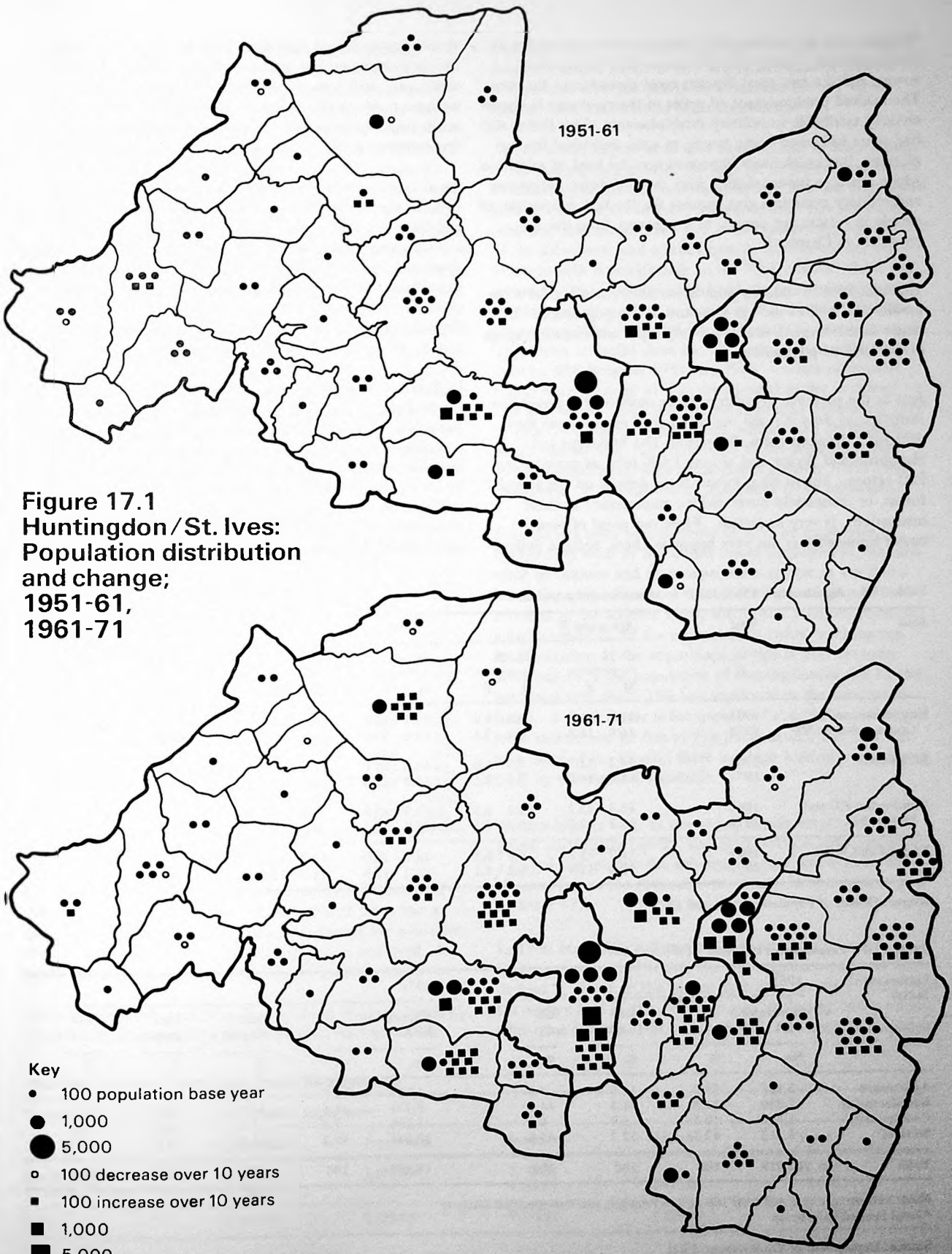


Figure 17.1
Huntingdon/St. Ives: Population distribution and change; 1951-61, 1961-71

We must now say a word about the age and sex structure of the population. Table 17.3 gives some data for the two towns, and the two rural districts most pertinent to the area. The marked predominance of males in the rural area is almost entirely ascribable to military establishments. This factor also had some influence in the towns, as some personnel live out of camp, but much more important was the level of migration, which tends to have a slightly high ratio of males. Migration and military personnel also account for the high proportion of people in certain age groups, as is apparent from the age pyramids in Chapter 9.

The high level of military population undoubtedly affects the mobility as well as the age structure of the population. A single decision could result in a very rapid and sizeable change in the level of population.

Just as the presence of military bases obscures the population statistics, so does it make our analysis of employment more difficult. Between them, Brampton, The Stukeleys and Houghton and Wyton had almost 1,600 jobs, as recorded on ERI returns; but to what extent these depend on the armed forces, or completely cover civilian employment in these institutions, is very uncertain. From our point of view better knowledge is not very important here, because policy simply has to accept that these bases are very important in the local economy but are also subject to sudden decisions which may well bring problems of one kind or another. What we have to be careful about is the danger of inferring too much from statistics that are made a little less meaningful by the existence of the armed forces in such strength.

Apart from the places that we have just mentioned, employment in the Huntingdon area was dominated by the two towns and three minor centres. The towns had 63% of the total civilian employment, which was 18,550 in 1971. Fenstanton employed 333 people, mainly at a dairy or in sand and gravel extraction. At Swavesey there were 359 people at work, mainly in engineering and the production of rubber goods. Papworth Everard had 834 jobs, almost entirely at a hospital and its associated industries about which we say more later.

In Table 17.4 we summarise the employment structure of the exchange area. It has a pattern that by now is familiar. Agriculture is important but has very much declined. Manufacturing employment has grown, but even now represents less than a third of the total. Service employment – not to be confused with the armed services – has grown, and now is proportionally more important than at a national level. It stands at 55%. As one would expect in an expanding area, employment in construction is on the high side.

Table 17.3 Age structure 1961, 1971: total enumerated population

Area	Year	Age group %											
		0–14		15–24		25–44		45–64		65+		Total	
		M	F	M	F	M	F	M	F	M	F	M	F
Huntingdon and Godmanchester MB	1961	12.2	11.0	6.3	6.9	13.2	12.8	11.8	12.8	5.1	8.0	48.6	51.4
	1971	16.0	14.8	6.4	7.1	13.6	13.6	9.1	9.2	4.1	6.1	49.2	50.8
St. Ives MB	1961	14.2	12.3	5.7	6.0	14.6	14.0	11.1	11.6	4.0	6.5	49.6	50.4
	1971	14.0	14.0	7.5	8.1	14.0	13.9	9.7	9.2	3.6	5.8	49.0	51.0
Huntingdon RD and St. Ives RD	1961	13.3	12.2	12.1	6.5	15.7	12.8	9.4	9.0	3.9	5.1	54.3	45.7
	1971	13.5	12.8	10.3	7.5	15.0	13.3	9.5	9.1	3.8	5.2	52.1	47.9
England and Wales	1961	11.7	11.2	6.6	6.5	13.1	13.0	12.3	13.5	4.6	7.3	48.3	51.5
	1971	12.4	11.8	7.3	7.1	12.2	11.9	11.7	12.5	5.0	8.0	48.6	51.4

Source: Census of Population 1961 and 1971

Table 17.4 Employment structure*, 1951 and 1971

Employment Sector	1951				1971				
	Huntingdon EEA		Sub-Region	GB	Huntingdon EEA		Sub-Region	East Anglia	GB
	No.	%	%	%	No.	%	%	%	%
Agriculture	3,158	25.2	17.8	3.8	1,127	6.1	6.5	7.3	1.6
Manufacturing	2,730	21.8	21.5	44.2	5,771	31.1	30.7	34.0	40.0
Construction	1,318	10.5	8.0	6.4	1,396	7.5	7.1	6.9	6.0
Services	5,313	42.5	52.7	45.6	10,244	55.2	55.6	51.6	52.1
Total	12,519	100	100	100	18,550	100	100	100	100

Note: Percentages may not total 100 due to rounding and non-specified category
*Total insured employees

Source: Department of Employment, ERII

We have some useful information about manufacturing industry, derived not only from the usual sources but also from a survey carried out by the Huntingdonshire County Council. At first sight the most interesting feature is that almost a third of the employment in this sector – and so over 9% of all employment (compared with 2% in 1951) – was in that miscellaneous group known as 'other manufacturing'. In fact it consists of various firms engaged in plastics (employing 611 persons in 1971) and in rubber (employing 1,185 persons). Another significant increase was in 'engineering and electrical goods', where the share of total employment rose from 1.9% in 1951 to 6.0% in 1971. Almost two-fifths of the people employed in this group were in electrical work.

Much of the manufacturing industry is located in Huntingdon itself, mainly on industrial estates. Table 17.5 summarises its composition in 1971. There were 41 firms employing almost 2,700 persons. Well over half of these worked for nine firms in the 'other manufacturing' sector, which we have just mentioned. Mechanical and Electrical Engineering, Paper, Printing and Publishing, Vehicles and Timber and Furniture are other groups employing at least 100 persons.

Table 17.5 Classification of firms in Huntingdon, 1971

Order	Number	%	Employment	%
Food, drink and tobacco	2	4.9	20	0.7
Chemicals and allied industries	1	2.4	48	1.8
Metal manufacture	1	2.4	7	0.2
Mechanical engineering	6	14.6	301	11.2
Instrument engineering	2	4.9	9	0.3
Electrical engineering	1	2.4	113	4.2
Vehicles	6	14.6	162	6.0
Metal goods not elsewhere specified	2	4.9	63	2.3
Textiles	1	2.4	9	0.3
Leather goods, leather and fur	1	2.4	42	1.6
Timber, furniture etc.	3	7.3	180	6.7
Paper, printing and publishing	6	14.6	192	7.1
Other manufacturing	9	22.0	1,549	57.6
Total manufacturing	41	100	2,695	100

Source: Department of Employment, ERI

Table 17.6 summarises the status of twenty-four industrial establishments in Huntingdon. Two-thirds of them had a local head office, and half of them, accounting for a quarter of their total employment, were independent and local. It seems that on average the local fims are smaller employers.

Other manufacturing employment exists at St. Ives, Swavesey, Fenstanton, and in various scattered units throughout the exchange area. In the other principal sub-centres of employment the service sector is very important, usually because it is associated with the provision of services for one of the military establishments or other institutions.

As one would expect in an area that has had so large a part of the sub-region's growth, the number of jobs has risen very considerably in the last two decades; and, like the population growth, most of the increase in employment has been concentrated into the sixties. It is in this respect typical of most of the sub-region: and as elsewhere in the sub-region, much of the growth is attributable to the TDA scheme which was agreed in 1961. On the other hand, the growth of jobs in St. Ives, can be ascribed to this only if it is argued that the presence of TDA firms and labour in Huntingdon encouraged other firms to locate close by. In both towns employment grew by 60% between 1951 and 1966 – a rate of growth almost twice as great as that experienced in the exchange area as a whole. Here the insured employed population grew by only 34% during twenty years, whereas the total population rose by 51%. In other parts of the sub-region the reverse pattern held, with employment growing faster than population. It is a difference that needs to be explained.

Four factors seem to contribute to it. The employment figures omit most of the armed forces employment, whereas some servicemen and their dependants appear in the Population Censuses. Second, because of the married quarters attached to the airforce bases, and to the TDA immigration, a high proportion of the population is below working age. An illustration of the importance of this is that between 1961 and 1971 the population of Huntingdon in the 15–64 age group rose about 15% less rapidly than the total population. A third factor is the growth of commuting, which to some extent may be due to this phenomenon but may also be a cause of it. Finally, there is a high level of unemployment by sub-regional standards.

We should note that, as elsewhere, female employment has grown particularly rapidly, and since 1961 it has done so at a rate almost double the sub-regional rate and over seven times as fast as the national rate. Some comparisons appear in Table 17.7.

In 1966 over 89% of the workers in Huntingdon and Godmanchester lived within the Huntingdon area as we have defined it. Most of the labour flow into the town came from the eastern half of the exchange area, including 260 workers who came from St. Ives. Here there is not only an emphasis

Table 17.6 The status of surveyed firms in Huntingdon UD

Location of head office	Status and % employment				
	Independent	Parent firm	Subsidiary	Branch	Total
Huntingdon	12 (26.8)	1 (28.4)	3 (8.3)	–	16 (63.5)
Elsewhere in UK	2 (0.9)	–	4 (15.0)	2 (20.6)	8 (36.5)
Total	14 (27.7)	1 (28.4)	7 (23.3)	2 (20.6)	24 (100)

Source: Survey conducted by Huntingdonshire CC

Table 17.7 Employment growth* in Huntingdon EEA, 1951 (%)

	1951–1961			1961–1971			1951–1971		
	Huntingdon EEA	Sub-Region	GB	Huntingdon EEA	Sub-Region	GB	Huntingdon EEA	Sub-Region	GB
Male	5.8	9.6	6.5	22.4	14.8	-2.6	29.6	25.8	3.8
Female	21.8	21.4	12.6	55.1	32.1	7.6	88.9	60.4	21.2
Total	10.8	13.4	8.6	33.7	20.8	1.0	48.2	36.9	9.7

*Total insured employees

Source: Department of Employment, ERII

of the different socio-economic structures of the eastern and western parts of the exchange area, but also a warning that future growth could lead to traffic problems between the two towns. The parishes with air-bases also provide significant contributions to the employers of Huntingdon, as do the dormitory Hemingfords.

Table 17.8 shows us that there has been a slight decline in the proportion of the workforce of Huntingdon that lives within the Borough.

In 1966 it was just slightly over two-thirds. The growing importance of the urban and rural districts of St. Ives and of Bedfordshire may be noted. The Borough of St. Ives was clearly establishing a reverse flow, attracting workers from Huntingdon by 1966. Other places to which the residents of Huntingdon went for work included Cambridge, Huntingdon Rural District, St. Neots and Bedfordshire. More detail appears in Tables 17.8–17.10. Information for the whole exchange area suggests that in 1966 it was a net importer of labour.

This is a little surprising, since unemployment rates in the EEA have been consistently above the sub-regional average, and around the end of the sixties they even passed the national average. In July 1971 the Huntingdon EEA figure was 3.8% compared with a national rate of 3.5%. Yet by January 1972 the local rate was dramatically lower at 2.7%, compared with the national figure that had by then climbed to 3.9%. Registered vacancies have in recent years stood at about half the level of registered unemployed. It seems that the economy of this area is suffering most from an inadequate range of stable jobs; and it could be that this reflects the high proportion of small employers. Certainly, further expansion of the population should be controlled with a careful eye on the nature and quantity of new employment provided in the area. One problem seems to have been a shortage of suitable land zoned for industry. The existing proposals can be best indicated by quoting from the Town Maps for the two urban centres.

"The 1962 Town Map (Huntingdon & Godmanchester) allocated a new industrial area of 29.4 hectares (72.7 acres) at St. Peter's Hill. By mid 1971 about 25.9 hectares (about 64 acres) had been taken up leaving some 3.6 hectares (9.0 acres) undeveloped although by that time, some 1.6 hectares (4 acres) had become unoccupied. Within the whole area it is estimated that some 6.0 hectares (14.7 acres) were held by individual firms for future expansion.

Table 17.8 Place of work of all economically active persons resident in Huntington MB: 1951, 1961, 1966

Huntingdon area	1951		1961		1966	
	Number	% of total economically active residents	Number	% of total economically active residents	Number	% of total economically active residents
Total residents economically active	3,521	100	3,750	100	6,180	100
i) Working locally	2,980	84.6	3,080	82.1	4,800	77.7
ii) Commuting out	541	15.4	670	17.9	1,380	22.3
viz						
Chesterton RD	29	0.8			50	0.8
Cambridge MB					110	1.8
Cambs. other	52	1.5	50	1.3	30	0.5
Huntingdon RD	155	4.4	300	8.0	540	8.7
St. Ives RD	159	4.5	110	2.9	220	3.6
St. Ives MB			70	1.9	110	1.8
Hunts. other	78	2.2	60	1.6	60	1.0
St. Neots UD					60	1.0
St. Neots RD					50	0.8
England and Wales other	68	1.9	80	2.1	60	1.0
Biggleswade RD					60	1.0
Beds. other					30	0.5

Source: Census of Population 1951, 1961, 1966

Note: Data not available for all places in all years. Definition of "other" places varies accordingly.

Table 17.9 Place of residence of all persons working in Huntingdon MB: 1951, 1961, 1966

Huntingdon area	1951		1961		1966	
	Number	% of total persons working in Huntingdon	Number	% of total persons working in Huntingdon	Number	% of total persons working in Huntingdon
Total persons working in Huntingdon	4,279	100	4,360	100	7,120	100
i) Resident locally	2,980	69.6	3,080	70.6	4,800	67.4
ii) Commuting into Huntingdon	1,299	30.4	1,280	29.4	2,320	32.6
viz						
Huntingdon RD	486	11.4	510	11.7	650	9.1
St. Ives RD	242	5.6	360	8.3	630	8.8
Ramsey UD	31	0.7	60	1.4	70	1.0
St. Ives MB	61	1.4	120	2.8	260	3.6
St. Neots UD	37	0.9			70	1.0
Norman Cross RD	25	0.6				
St. Neots RD	179	4.2			200	2.8
Peterborough MB	26	0.6				
Hunts. other	48	1.1	70	1.6	60	0.8
Northants	7	0.2				
Ely RD	35	0.8				
Cambs. other	62	1.4			70	1.0
Chatteris UD					70	1.0
Chesterton RD					140	2.0
England and Wales other	59	1.4	160	3.7	80	1.1
Bedford MB					20	0.3
Beds. other						

Source: Census of Population 1951, 1961, 1966

Table 17.10A Place of work of all economically active persons resident in St. Ives MB: 1951, 1961, 1966

St. Ives MB	1951		1961		1966	
	Number	% of total economically active residents	Number	% of total economically active residents	Number	% of total economically active residents
Total residents economically active	1,379	100	1,720	100	2,400	100
i) Working locally	956	69.3	1,270	73.8	1,370	57.1
ii) Commuting out	423	30.7	450	26.2	1,030	42.9
viz						
Huntingdon and Godmanchester MB	61	4.4	120	7.0	260	10.8
Hunts. other	236	17.1	260	15.1	490	20.4
Cambridge MB	32	2.3	60	3.5	120	5.0
Cambs. other	67	4.8	10	0.6	70	2.9
Other	27	2.0			90	3.8

Source: Census of Population 1951, 1961, 1966

Table 17.10B Place of residence of all persons working in St. Ives MB: 1951, 1961, 1966

	1951		1961		1966	
	Number	% of total persons working in St. Ives	Number	% of total persons working in St. Ives	Number	% of total persons working in St. Ives
Total persons working in St. Ives	1,639	100	2,170	100	2,660	100
i) Resident locally	956	58.3	1,270	58.5	1,370	51.5
ii) Commuting into St. Ives	683	41.7	900	41.5	1,290	48.5
viz						
Huntingdon and Godmanchester MB			70	3.2	110	4.1
Hunts. other	590	36.0	690	31.8	990	37.2
Cambridge MB					260	9.8
Cambs. other	71	4.3			30	1.1
Other	22	1.3	140	6.4		

Source: Census of Population 1951, 1961, 1966

"Between the start of town development and mid-1971, 59,780 sq. metres (643,500 sq. ft.) of factory space, in 37 units, had been created, although one of the factories was vacant, and two firms occupied two units each. Thus 34 firms were in occupation at that date. Of these 30 were industrialists; one was a metal stockholder; one a road haulier; one an export packer, and the other unit was used as a depot by the Peterborough & District Co-operative Society.

"Most of the newly established firms have come from London and the South East. The average sized firm employed 68 workers in 1971, but only 10 firms employed more than this, whilst 31 employed less. There were two firms with 500 or more workers, four 100–499, and twenty each employed between 20 and 100 workers.

"The total number of workers on the St. Peter's Road industrial area is about 2,000, giving a density of about 27.5 workers per industrial acre. There is, however, room for intensification of development on existing sites, which could raise the density to about 34 workers per acre. It is considered unlikely that this will in practice be achieved and a more likely density of 30 workers per acre has been assumed, both for the existing sites and for the new industrial areas included in the Plan.

"On this basis, the existing sites would accommodate some 600 workers making it necessary to allocate 32.4 hectares (80 acres) to accommodate some 2,400 workers. A new industrial area of 33.0 hectares (81.6 acres) has been allocated on the opposite side of the main-line railway to the St. Peter's Road industrial area, with good communication to the primary road network."

This is felt to be adequate for the 6,000 further jobs estimated to be required between 1971 and 1981.

A further 2,000 jobs are felt to be necessary in St. Ives over the 1971–81 period. These are to be accommodated as follows:

"The original area allocated in the 1962 Town Map to the west of Somersham Road was over 14 hectares (35.3 acres), but this was subsequently extended to give a further 10.3 hectares (25.5 acres) and a total of 24.6 hectares (60.8 acres). By mid 1971, 7 hectares (18.0 acres) remained completely undeveloped, whilst most of the established firms have considerable potential for further expansion. It is estimated that overall, the industrial firms have not attained even half their potential employment capacity and could quite reasonably provide a further 1,000 jobs within the existing area.

"It is proposed, however, to allocate a further 10.5 hectares (26 acres) mainly to the north of the industrial area to provide more freedom of choice to prospective industrialists, even though the existing land allocation would theoretically suffice to meet expected demand. Further potential also exists elsewhere in the Plan Area, which with the proposed allocation, will meet the requirements up to and beyond the Plan period."

The problem of attracting jobs could well be the weak link in the expansion programme for the EEA, because of this the 1981 population targets could be considered a little excessive. Recent adverse changes in the finance of TDA industry could be important here.

Expansion on this scale also has its implication for housing. During the sixties, house building in the Borough of Huntingdon and Godmanchester averaged just over 300 houses per annum. Two-thirds of these were built by the public sector. The peak year was 1964, when 523 houses were completed. In 1970 only 82 houses were finished, including 48 that were built privately. Further detail appears in Table 17.11.

Table 17.11 Huntingdon and Godmanchester MB: houses built, 1960–1972

Year	L.A.	Private	Total
1960	24	85	109
1961	63	75	138
1962	155	109	264
1963	108	81	189
1964	359	164	523
1965	340	142	482
1966	286	82	368
1967	386	65	451
1968	177	41	218
1969	102	63	165
1970	34	48	82
1971	39	133	172
1972	116	160	276
Total	2,189	1,248	3,437

Source: DOE Local Housing Statistics

In St. Ives, house building has been at not much more than a third of this level; and only one seventh of it has been built by the local authority. The two principal rural districts have had very sizeable programmes, with a very marked preference for the private sector. Some more precise information shows that especially in Huntingdon Rural District there has been a good bit of demolition. In St. Ives Municipal Borough demolitions have been low, reflecting the demand for the acquisition and improvement of the older houses.

A striking feature of housing in the EEA is the high proportion of dwellings recorded as 'Tied or Other' – i.e. neither owner-occupied nor rented from the public or private sector in the ordinary way. This is not so much because of agricultural employment – important though that is – as due to the military establishments in the area. We can also see the growing importance of public sector tenancies in Huntingdon and Godmanchester, contrasting sharply with their decline in St. Ives and the rural area. Either because of the TDA scheme (in the urban area) or because of more military housing (in the rural area) owner occupation is markedly lower in the Huntingdon districts than in the St. Ives districts. Table 17.12 presents the basic data. We do, however, have to exercise some caution here. Houses built for military occupation whether on or off base, appear as ordinary dwellings, listed as 'privately rented' in the 1971 Census, but as 'tied or other' in early Census tables. In Local Authority Housing

Table 17.12 Tenure structure

Area	Year	L.A./New town	Owner-Occupied	Rented	Tied and other
Huntingdon MB	61	26.2	37.2	29.5	7.2
	66	43.9	33.2	17.9	5.0
St. Ives MB	61	28.5	41.9	20.5	9.1
	66	23.9	54.0	14.1	8.0
Huntingdon RD	61	20.9	25.9	23.1	30.2
	66	18.4	31.1	14.9	35.6
St. Ives RD	61	22.2	38.6	18.2	20.4
	66	21.7	43.5	16.0	18.8
Sub-Region	61	26.6	37.4	23.2	12.9
	66	27.7	41.9	19.3	11.2
GB	61	25.5	40.6	27.8	1.8
	66	28.7	46.7	19.2	5.4

Source: Census of Population

Statistics, RAF houses are listed under 'other public sector'. Some USAF houses built by special arrangement at Huntingdon appear as 'private sector'.

In common with many expanding towns, Huntingdon has had a growth in its average household size. Data for 1971 are not yet available, but Table 17.13 records the changes between 1961 and 1966. Since the 1966 data are derived from a sample census they need to be treated with a little additional caution, but there is little doubt about the direction of the change. At the same time, overcrowding fell remarkably, even after allowing for changes in definition. These two statistics reflect the fact that house building has been able not only to cope with new households but also to improve housing conditions. To a lesser extent the same tendency has been apparent in the Huntingdon Rural District. In and around St. Ives average household size has fallen, but we have no 1966 data for overcrowding. On the whole, the exchange area is reasonably well off in terms of the standard housing amenities, largely because there has been so much new building.

Table 17.13 Total private household population: average household size and nominal overcrowding, 1961–66

Area		Average household size	% Persons living at over 1½ p.p.r.
Huntingdon MB	61	3.03	5.9
	66	3.33	1.1
St. Ives MB	61	3.05	1.2
	66	2.99	n.a.
Huntingdon RD	61	3.29	6.4
	66	3.39	2.0
St. Ives RD	61	3.17	3.7
	66	3.16	n.a.
Sub-Region	61	3.03	3.6
	66	2.90	1.0
England and Wales	61	3.06	7.0
	66	2.99	3.2

Source: Census of Population

For the future prospects we can best fall back on the Town Plans for the two boroughs. The Huntingdon Plan says:

"The number of homes (3,340) necessary to accommodate the additional population during the period up to 1981 is set out in Table 2 (following para. 4.6).

"As already mentioned, 147 of the Local Authority houses are temporarily unoccupied, for a number of reasons. Some of the former tenants have purchased their own houses; a few have left the area for personal reasons or following industrial redundancies and there has been a general slowing down in the rate of movement of new industry to the town. The current Plan will overcome the shortage of land for industrial development and adequate reserves will be available to meet local and wider growth arising from an expected resurgence of the national economy.

"Land is committed by outstanding planning permissions for a further 241 Local Authority houses and 245 private houses, making a total of 486.

"In the 5 year period 1967–71, 1,000 houses were built within a radius of about 8 kilometres (5 miles) of Huntingdon and there would be a need for a further 2,000 houses by 1981, if this trend were to continue. Considerable growth has been experienced in the rural area surrounding Huntingdon during recent years but the remaining capacity of the villages is still sufficient for about 1,000 new homes. The land allocation in the plan allows for the balance of 1,000 houses indicated by the recent trends.

"The land allocated in the Plan for new houses is in five main areas, the details of which are set out in the following table:

Future residential land allocation–Huntingdon and Godmanchester MB

District	Area		Av. overall density		Homes	Population
	Hectares	Acres	Ho/ha	Ho/ac		
Huntingdon:						
East of railway	15.7	38.7	26.1	10.6	410	1,692
Between railway and A14	50.9	125.7	24.8	10.0	1,261	3,783
Between A14 and by-pass	27.3	67.5	27.0	10.9	737	2,211
Total Huntingdon	93.8	231.9	25.7	10.4	2,408	7,686
Godmanchester:						
North of Cambridge Road	5.4	13.4	23.7	9.6	128	313
Between A604 and A14	9.8	24.3	27.3	10.0	267	801
Between A14 and Silver Street	30.4	75.1	20.0	8.1	609	1,827
Total Godmanchester	45.6	112.8	22.0	8.9	1,004	2,941
Total	139.5	344.7	24.4	9.9	3,412	10,627

"The 1981 housing target will involve the building of an average of 310 houses per annum. This number was surpassed during the period 1964–1967 and there is little doubt that the building industry will be equal to the task.

"Additional land (approximately 8.1 hectares (20 acres)) has been allocated for housing to provide flexibility of density, occupancy rate, choice of building sites and the possible unavailability of land."

The Plan for St. Ives says:

"The number of houses needed to accommodate the population growth expected during the period up to 1981 is estimated to be about 1,300. This would allow for an average construction rate of 130 houses per year, which is considered reasonable for a town of the size and character of St. Ives.

"Planning permission had already been given for 1,200 dwellings at mid 1971. (Detailed approval for 675 and outline consent for land for about 525 houses).

"A further 19 hectares (47 acres), (about 14 hectares (35 acres) above the estimated requirement), has been included in the Plan for future housing development and will provide a tolerance to allow for flexibility of density, occupancy rate, choice of building sites and the possible unavailability of land.

"It has been assumed that densities of future housing will range between 15 and 30 dwellings per hectare (6 and 12 dwellings per acre) and that occupancy in new development will rise quickly to a maximum of 3.3 persons per dwelling and subsequently decline over an extended period to stabilise at a level of 3.0 persons per dwelling.

"An average construction rate of 130 dwellings per annum over the ten year period is entirely consistent with the demonstrated capabilities of the building industry."

It is already apparent that this area with its two market towns has both an entity and a duality. This is again observable in its shopping. The two market towns are but four miles apart and each has Monday as its market day. Instead of considering the two towns separately, we shall look at them first in parallel, and then together. We did surveys in both towns.

First, let us note that no significance is to be attached to the fact that different numbers of people were interviewed by us in the two towns; and that it will be inappropriate to add numbers for one town to numbers for the other unless certain conditions are observed.

We will begin with Monday, October 25th 1971. The street survey in Huntingdon questioned 393 people of whom 86 – being 22% – were also working in the town. The survey for St. Ives included 237 of whom 49 a very slightly smaller percentage – were at work.

People questioned in Huntingdon were more likely to be car-users than those stopped in St. Ives, if they were also at work, but less likely if they were there simply to shop. The relevant figures are given in Table 17.14.

Table 17.14 Shoppers working/not working by mode

	Working			Not working		
	By car	Not car	Car / Not car	By car	not car	Car / Not car
Huntingdon	45	41	1.10	151	156	0.97
St. Ives	19	30	0.63	108	80	1.35

Source: CSRS Shopping Survey

In Huntingdon, 44% of the non-working shoppers and 49% of the working shoppers lived within the borough. For St. Ives the percentages were 34% and 59% respectively. Cars were used by about a sixth of the local people interviewed in Huntingdon and by about an eighth of the local people included in the St. Ives inquiry. A further comparison of the spatial origins of the shoppers is provided in Table 17.15.

If we look at working and non-working shoppers separately, we get the Table 17.16.

Table 17.15 % distribution of shoppers: Monday, October 25th, 1971

	Local origin	Rest of Huntingdon area	Outside area but within 10 miles	Elsewhere	The other borough
Huntingdon and Godmanchester	45.0	47.1	3.8	4.1	12 (3.1%)
St. Ives	38.8	46.8	6.7	7.6	15 (6.3%)

Source: CSRS Shopping Survey

Table 17.16 % distribution of shoppers: Monday, October 25th, 1971

	Local origin	Rest of Huntingdon area	Outside area but within 10 miles	Elsewhere	The other borough
Workers					
Huntingdon and Godmanchester	48.8	43.0	7.0	1.1	2 (2.3%)
St. Ives	59.1	26.5	6.1	8.2	2 (4.1%)
Non-Workers					
Huntingdon and Godmanchester	44.0	48.2	2.9	4.9	10 (3.3%)
St. Ives	33.5	52.1	6.9	7.4	13 (6.9%)

Source: CSRS Shopping Survey

Table 17.17 % Distribution of spending by mode and purpose

Mode	Purpose	Huntingdon			St. Ives		
		Low	Med.	High	Low	Med.	High
Car	Work	20.0	26.7	53.3	36.8	26.3	36.8
	Non-work	11.9	20.5	67.5	11.1	31.5	57.4
Bus/train	Work	10.0	60.0	30.0	50.0	50.0	nil
	Non-work	7.8	17.6	76.5	4.0	48.0	48.0
Foot/cycle	Work	9.7	32.3	58.0	76.0	20.0	4.0
	Non-work	16.3	19.2	64.4	27.8	46.3	25.9

Source: CSRS Shopping Survey

Since the two towns are differently located within the study area with Huntingdon more centrally situated yet also being contiguous to the St. Neots area to its immediate south, this comparative table has to be read with caution. The high proportion of working people caught shopping in St. Ives who came from within the town may be noticed. We may also note that St. Ives had a proportionally lesser dependence on its own residents who were not at work, and that this was not completely balanced by its higher dependence on the rest of the area. Over 14% of its shoppers came from outside the Huntingdon area, whereas for Huntingdon it was only 8%. An interesting point is that these percentages are true for both working shoppers and non-working shoppers.

The origins of the shoppers interviewed in the street surveys have been plotted on a map. It shows that people coming to Huntingdon do so from a wide more or less circular area that has Huntingdon at its centre; but those shopping at St. Ives are very much more likely to come from places to its east, and especially to its north-east.

In Table 17.17 we summarise the spending pattern of shoppers in the two towns. The figures for Bus/Train travellers who were also working are derived from small numbers and should be treated cautiously. The first point to notice is that in every category of mode and purpose, a smaller percentage of shoppers were high spenders in St. Ives than in Huntingdon. Another interesting comparison is that whereas people working in Huntingdon and arriving on foot or by cycle were more inclined to be high or medium spenders than those workers who came by car, in St. Ives the reverse was true.

The pattern of spending also depends on the distance travelled. This is brought out in Table 17.18 and it is interesting to read it in conjunction with the point just made about mode of travel. For both towns almost all of the people who arrived on foot or by cycle, lived locally. The upper part of Table 17.18 shows very clearly that in Huntingdon local people were good spenders, but that in St. Ives this was not so. This was especially true of the people who also worked locally.

Table 17.18 Origin of shoppers by level of spending

	Huntingdon			St. Ives		
	Low	Med.	High	Low	Med.	High
Local						
W	5	11	26	21	6	2
NW	17	28	90	14	31	18
Rest of Huntingdon area						
W	7	12	18	4	7	2
NW	17	27	104	12	32	54
Within 10 miles						
W	1	5	0	1	0	2
NW	0	1	8	0	5	8
Remote						
W	0	0	1	2	0	2
NW	5	4	6	2	4	8

Source: CSRS Shopping Survey

A similar pair of surveys was conducted on the following Saturday. The Huntingdon survey obtained data about 490 people of whom 65 were at work. In St. Ives the number interviewed was 246, and 27 of these – a slightly lower fraction than in Huntingdon – were at work.

Comparison of the data for Monday and Saturday throws up some interesting points. People shopping but also at work in Huntingdon were more likely to be car-borne on the Monday, but less likely on a Saturday. In St. Ives the reverse was true. Table 17.17 also gives information for non-workers. In St. Ives the ratio of car-users is high and the same on both days. In Huntingdon it is much higher than in St. Ives, and is double the Monday ratio.

We have found for other towns that usually the proportion of shoppers using cars is higher on a Saturday than on a market day. That it was so in Huntingdon and not so in St. Ives is due mainly to the fact, revealed by the tables, that on Saturday the proportion of shoppers coming from outside the town was higher than on Monday in Huntingdon, but lower than on Monday in St. Ives. Even local shoppers are more likely to use cars on Saturdays, but car-usage is also a function of distance travelled: and on Saturday, Huntingdon is more of a draw than is St. Ives. The fact that the proportion of people who were also at work and lived locally was higher in Huntingdon on Saturday than on Monday probably reflects a tendency of workers in office jobs, and it must be remembered that Huntingdon houses the administrative headquarters of the county, to live outside the town.

The Saturday figures for levels of spending confirm that St. Ives was visited by fewer high spenders, independently of purpose and mode, than was Huntingdon. In the smaller town the workers who came by car were more likely to be low spenders than high spenders, in sharp contrast with the pattern in Huntingdon. On the other hand, on the Saturday the (mainly local) workers who came on foot and shopped in St. Ives spent more than those who used cars. This reversed the Monday pattern, and so on Saturday the two towns were similar in this respect.

These rather dreary comparisons have to be made if we are to obtain an objective impression of the relevant functions of these two shopping centres, partly out of general interest but also because of their relevance to our proposals for Cambridge. Before we pull them together we must also look at some other information about them.

Huntingdon is the larger shopping centre. In 1961 it had total sales about 60% higher than those of St. Ives. In the latter town sales were divided equally between convenience and durable goods, but in Huntingdon there was a slight balance in favour of durable goods, which constituted 54% of the total. The comparative position has changed since then. At the time of the 1961 Census of Distribution there was in Huntingdon an infamous incessant conflict between through traffic, pedestrians, and car-borne shoppers. Although car-passengers were known sometimes to take advantage of this, and to purchase their weekend joints while waiting for the cars to move, this interesting gain in trade was probably small compared with the overall desire to avoid being trapped in an almost stationary queue. The introduction of the ring road and the pedestrianisation of the High Street, with an expansion of the shopping area and good car parking facilities have undoubtedly made Huntingdon a better place in which to shop. There has also been expansion of facilities in St. Ives, but it has been comparatively small, and pedestrianisation has not yet become possible.

There has also, of course, been a growth of population in and around both towns. It is this, and the national upward trend, rather than pedestrianisation (which had not then taken place) that explains the changes revealed by a comparison of the Census of Distribution data for 1961 and 1966, although they are confused by the amalgamation with Godmanchester on April 1st 1961. There are two that are of significance here. Sales in Huntingdon became almost double the sales of St. Ives. But they grew at only two-thirds the rate of growth of sales in Cambridge. This latter point is not unexpected. Huntingdon has its Woolworths: but neither a Marks & Spencers nor a department store. In 1971 the central shopping area in Huntingdon had 170,000 square feet of sales and essential storage space. St. Ives had two-thirds as much, but a greater tendency than Huntingdon towards durable goods. Non-central floorspace in Huntingdon was about 22,000 square feet, compared with 8,000 in St. Ives. Rating statistics for 1967 attribute 243,000 square feet to Huntingdon and Godmanchester, and 148,000 square feet to St. Ives.

We may now look at the information obtained in our household survey. It suggests that, despite the fact that a greater proportion of its (smaller) total floorspace is devoted to the sale of durables, St. Ives does not exert as strong a pull on purchasers of those commodities as does Huntingdon. This is compatible with the 1961 expenditure figures. However, the pull of Cambridge is great, and the importance of St. Ives to some of the villages is very clear.

The residents of both towns buy about 90% of their food locally, the percentage being a trifle higher for Huntingdon. The people of St. Ives make between 2% and 3% of their

food purchases in Cambridge, and a similar proportion in Huntingdon. About 5% of their food is homegrown or bought in various places of no especial significance to the overall spending pattern.

On the other hand, no single place takes away from Huntingdon as much as 2% of the expenditure on food by its residents. Home-grown and scattered purchases reach almost 10% of the total.

Our household survey also revealed something about the importance of these two towns to some of the villages. For example, the residents of Somersham buy about 30% of their food in St. Ives and about 13% of it in Huntingdon which is further away. The households of Elsworth buy almost 20% of their food in St. Ives, a negligible amount in Huntingdon, 3% in St. Neots, 3% in Swavesey and 10% in Cambridge.

Turning to other forms of expenditure we find that St. Ives retained 49% of the spending on major items by its residents, and 62% of spending on minor items. The comparable figures for Huntingdon are 60% and 64%.

When the residents of St. Ives went shopping away from their town they favoured Cambridge, but in an interesting way. Whereas the sub-regional capital took 16% of their expenditure on minor items, while Huntingdon took only 3%, it took 17% of their spending on major items compared with Huntington's capture of 12%. They also relied on mail order more for major items than for minor items – 7% against 4%. Peterborough had a negligible impact.

The residents of Huntingdon also favoured Cambridge, which took 10% of their spending on major items and 9% of their spending on minor items. For major goods, Peterborough was the second principal centre, taking 7% of the trade, compared with 5% that went to mail order firms and 3% to St. Ives. Mail order, still at 5% was more important than Peterborough for the purchase of minor items.

The residents of Somersham quite definitely ranked their shopping centres for non-food items in one way – first St. Ives, then Cambridge, then Huntingdon, then Peterborough and mail-order. There was very little local spending on major items. A third of the total went to St. Ives, 22% to Cambridge, 18% to Huntingdon, 5% to Peterborough and 7% to mail-order. For minor items a third of the spending was done locally, 22% in St. Ives, 15% in Cambridge, 7% in Huntingdon, with Peterborough and mail-order each taking 5%.

The other village for which we have data is Elsworth. For both major and minor items Cambridge took about half of the spending, and St. Ives about a sixth. Huntingdon took about 3% of minor expenditure, which was less than St. Neots share of 7%. Mail-order spending was responsible for about 6% of the total.

The overall pattern emerging from this is very easily reconciled with that revealed by the street surveys. Two quite strong shopping centres, neither of them strong enough to be a substitute for Cambridge except in the sale of food; with Huntingdon dominating St. Ives, especially for the sale of durables; but with St. Ives not only retaining the major part of its own spending on durables but also attracting important custom for those villages nearer to it than to Huntingdon. The importance of some of the detail will emerge later, when we consider some aspects of shopping in Cambridge.

As in the other market towns, there is no office or business centre as such in Huntingdon and St. Ives. Several offices are accommodated in the Chequers Court precinct in Huntingdon, some on the ground floor and others at first floor level, but generally the trend is to use converted residential premises or small purpose built blocks. There are also, of course, local government offices.

Unless office expansion is greater than might at first be expected there is unlikely to be any boom in office building or development of a scale inconsistent with the character of the town. The 1972 town plan allocated 2.8 ha for business use in Godmanchester. This is not only for offices, but is intended for new or relocated businesses and commercial undertakings, builders yards and light industries. No specific provision is made for St. Ives. The recently adopted new Central Area Plan for Huntingdon proposes 140,000 square feet of extra office space by 1981. This is on two sites. One at Grammar School Walk is under construction and is due to be completed sometime mid-1973. It amounts to about 70,000 square feet. The other site is at the junction of Brookside Street/Riverside Street. A site of 12.1 hectares is also held in reserve at Hinchingbrooke Park for the possible location of the administrative headquarters of the new County Council.

The road communications in this exchange area need a little fuller treatment than in other areas, partly because of their complexity, partly because of pending developments, and partly because they constitute not only part of the sub-region's main access to the Midlands and the north, but also a part of the road network that will become increasingly important as those industrial areas look to the east coast ports of East Anglia.

The traveller from the north leaves the very fast A1 at its junction with the A14 trunk road, and soon finds himself driving through Huntingdon and around its centre on a busy dual carriage-way one-way ring road, which also gives access to its central area car parking and shopping facilities. One suspects that it is approaching its practical capacity in a peak hour. The A14 passes over the narrow ancient bridge and winds through Godmanchester. From there it goes south to Royston.

To reach Cambridge from the north, one leaves the A14 at its junction with the A604 in Godmanchester. This is a principal road, for three lanes over most of its length, giving fast access between Cambridge and the A1. It is to be widened to provide six lanes.

Leaving Huntingdon to the north-east is the A141. Beyond its junction with the A1123, which leads to St. Ives, it is not heavily used. it is a two lane road, and runs to Chatteris and March. If work flows between St. Ives and Huntingdon continue to expand the few miles nearest to Huntingdon, and the start of the A1123 could soon become overcrowded, and warrant improvement either of these sections or of the alternative route that uses the northern end of the A604. This latter could well create problems at the point where travellers from St. Ives reach that road. People commuting into and out of Huntingdon are very much inclined to use the car, with buses coming a very poor second. Indeed, out commuters were quite as likely to use goods vehicles as buses. Just over a quarter of those living and working locally used cars, and a similar fraction used pedal cycles. About two-fifths of the locals walked to work.

Those who commuted from St. Ives were much more dependent on cars. Only a third used other means of transport, with the bus taking about one person in ten, and pedal cycles almost as many. Travellers into St. Ives depended less on the car. Only two-fifths of them did so. Another quarter used pedal cycles. The pattern for those living and working in St. Ives was much the same as for Huntingdon.

Both towns have by-passes to come. Recently work has started on the Huntingdon by-pass, skirting the western part of the town, winding south of it, over the river and lapping around the north of Godmanchester to join the A604. A northern by-pass is also being investigated for St. Ives, to reduce the heavy through traffic between the A1 and Ely, the Fens and the ports. Another busy pair of roads lie to the south west, linking Huntingdon twice more to the A1, and giving good access to the west and south.

Huntingdon is served by a railway line that provides frequent passenger services to London, Hitchin and Stevenage. To some extent it is a commuter town, London is about one hour away and may be even closer after electrification of the line. The railway continues north via Peterborough to Scotland. For Birmingham one changes at Peterborough. St. Ives has no rail link to Huntingdon, and no passenger line to Cambridge, but freight – mainly sand and gravel – is carried by rail between St. Ives and Cambridge.

We have already indicated that certain road improvements have been made and that others are on the way. Probably no single road improvement has had a more marked favourable environmental impact than that which freed central Huntingdon from its traffic: but considerable environmental problems remain. We shall shortly consider some of these. At this stage we will simply mention the main improvements that seem to be on the way or to be needed.

The A604 is probably to be improved into a dual three-lane highway as part of a long distance strategy route from London Docks via the M11 and the Cambridge Western By-pass to the Midlands. The Huntingdon by-pass mentioned above fits into this scheme. The Peterborough Sub-Regional Study has suggested a new motorway parallel to the A1 as a further improvement in north-south links. It seems to be a doubtful starter.

The traffic position in St. Ives is far from acceptable and various proposals are under discussion. We look at them in an environmental context later on. Here we may note that the town would be affected by any one of three matters currently under discussion. There is talk of a town bus-service, and of re-opening the passenger railway line to Cambridge.

Huntingdon and St. Ives are towns of character in a countryside that is gentle, peaceful and undramatic. Where it is not gently rolling, it is flat, which makes it very susceptible to visual intrusion by any vertical features. Grafham Water has a major landscape and recreational attraction. In the villages there are many historic churches and other buildings, worthy of preservation but often threatened by lack of funds. If these and the valuable character of these villages are not to be lost, expansion programmes will have to be implemented with more than usual care.

These two towns seem destined to grow, and in each case this growth will generate commercial pressures that may be used either to enhance or to destroy the character of their centres. There is need of local studies and decisions about which group of buildings will be conserved through public appeals, which will be conserved by a blend of development control and the encouraged prospect of commercial profit, and which will be allowed to change. At present there seems to be as much prospect of decay as of redevelopment. A growing population in the presence of a well-considered policy, can help to ensure both conservation and vitality.

Chapter 18

Employment in the sub-region

We now consider in more detail the character of employment in the Sub-Region. In doing so we shall both draw upon and add to the information about its component parts that we have just surveyed. As we have seen, the Cambridge Sub-Region has been defined as the aggregate of eight employment exchange areas. This means that in considering statistics of employment in the sub-region we avoid most of the difficult problems of boundary adjustments, except for a few concerning Ramsey and Soham, as already mentioned, and the amalgamation of the exchange areas of Huntingdon and St. Ives. Nevertheless, there remain other problems. The collection of statistics from many thousands of employers, directly or through insurance cards or other means, involves difficult and sometimes arbitrary decisions of definition as well as a great deal of room for error. We need to tread carefully.

As with other aspects of the sub-region, the abundance of statistics tempts the academic to engage in analyses of a kind that may test some theory or develop some new insight into the processes of economic and social change. This is a temptation that has been resisted. In the time that we have had available we have been required to work towards, and to reach, one end; and more than once we have had to abandon an interesting line of enquiry because it has seemed unlikely that it would contribute to our argument and recommendations.

We have to consider employment against the background of three important areas of policy:

(i) As we have seen in more detail in a previous chapter Huntingdon, St. Neots and Haverhill have entered into aggrements with London under the 1952 Town Development Act whereby population and industrial enterprises have moved from London to one of these towns, with certain financial benefits.

(ii) It has been part of the Government's policy to help new and expanding towns, including the three just mentioned as having TDA agreements, by favourably considering applications by prospective industrial developers for permission to develop in these areas. In fact new and expanding towns have had second priority in the granting of IDC's. First priority has gone to areas with particularly severe unemployment problems. Another important aspect of the IDC policy is that the creation of further employment opportunities in areas of labour shortage should be discouraged. Thus, in the Cambridge Sub-Region, the three employment exchange areas based on the expanding

towns have normally had favourable treatment from central Government. But in other parts of the Sub-Region, there is a labour shortage, except in the Ely EEA, and so firms wishing to undertake industrial building above a certain size (at present 15,000 square feet) can do so only if they can demonstrate good reasons for their choice of location. Various statistical analyses of applications for IDC's have been carried out, but none of them copes with the fundamental problem that awareness of the policy must surely interfere with both the number and the nature of the applications.

(iii) The remaining area of policy to keep in mind in the set of policies of planning authorities. We have already mentioned Cambridgeshire and Isle of Ely County Council's policy of restricting employment growth in Cambridge, especially unless the nature of the employment is acceptable, but of encouraging a certain amount of growth when compatible with its village policy. It is known that in some cases this has resulted in firms settling in one of the market towns as a second choice. The policies of the three expanding towns have obviously been to encourage the growth of employment. Royston now has a policy of restraint. It lies in the County of Hertfordshire, which has accommodated so much growth since the war that it now aims at stabilisation. On the other hand, much of the EEA is in Cambridgeshire, and contains an area of village growth. Conservation is the theme for Saffron Walden, where little industrial growth has occurred. In Newmarket the policy has been to permit growth but to keep a well defined upper limit in mind. Ely has attracted less growth than policy permits.

We may look at the sub-region as a whole, leaving the analyses of its component areas to other chapters. In 1971 the sub-region employed 136,000 people. More than half of them were in service industries, which employ a higher fraction of the total than elsewhere in East Anglia, and, indeed, than in most other parts of the country. Agricultural employment, too, is relatively more important than in the country as a whole, but not quite as important as in other parts of East Anglia. The Employment Returns on which we base our statistics in this chapter understate employment in services and agriculture.

Manufacturing employment accounts for less than a third of the total. The principal data are presented in Table 18.1.

Table 18.1 Employment in the Cambridge Sub-Region and East Anglia by industry sector, 1971 (000's)

Industry	Cambridge Sub-Region		East Anglia		Great Britain
	No.	%	No.	%	%
Agriculture	8.9	6.5	46.7	7.3	1.6
Manufacturing	41.8	30.7	217.0	34.0	40.0
Construction	9.7	7.1	44.2	6.9	6.0
Services	75.8	55.6	328.9	51.6	52.1
N.S.	0.2	0.1	1.4	0.2	0.3
Total	136.4	100.0	638.2	100.0	100.0

Source: Department of Employment, E.R.II

Twenty years ago, sub-regional employment totalled just under 100,000 jobs. Then, too, service industries took up over half of them, although the percentage was not as high as now. Agriculture was both relatively and absolutely more important with about double the present number of jobs, representing almost a fifth of the total. Manufacturing has grown, partly through population growth and partly by a movement from the farms. The number of manufacturing jobs rose from 23,000 in 1951 to 42,000 in 1971. In construction, employment has grown just a trifle more slowly than the overall total: but this is an industry where comparisons of this kind are often misleading. The most that can usefully be said is that while the other three major sectors of employment have significant changes in their share of the total, the construction sector has not witnessed any spectacular shift in its share. It remains relatively high when compared with other parts of the country.

In Table 18.2 we compare the 1971 pattern in the sub-region with those in East Anglia as a whole, and in two adjacent economic planning regions – the South-East and East Midlands. The former is dominated by service employment and the latter by manufacturing. In neither is agriculture nearly as important, proportionally, as in East Anglia or the sub-region. Construction, too, is less important in these adjacent regions, reflecting partly the high rate of net immigration into East Anglia. An interesting point is that the employment structure of the sub-region differs from that in the South-East mainly by having higher proportions in agriculture and in building activity. On the other hand, the ratio of service jobs to manufacturing jobs, though high, is not quite as high as in the region that is to a large degree the service centre of the whole country. The proximity of the sub-region to the national service centre is probably more important, at present, than its proximity to the populous and economically buoyant region to its west. Improving communications to the south and to the Midlands are bound to make both of these influences even more important.

Table 18.2 Employment in the Cambridge Sub-Region, East Anglia, South East and East Midlands by industry sector, 1971

Industry	Cambridge Sub-Region	East Anglia	South East	East Midlands
Agriculture	6.5	7.3	1.1	2.0
Manufacturing	30.7	34.0	32.1	50.5
Construction	7.1	6.9	5.3	5.5
Services	55.6	51.6	61.3	41.6
N.S.	0.1	0.2	0.1	0.3
Total	100.0	100.0	99.9	99.9

Source: Department of Employment, E.R.II

The distribution of employment over the sub-region is very different from what it was. In 1951 over half of the jobs in the sub-region were in the Cambridge employment exchange area; and that remains true, even though there has been a slight fall in the percentage. The Huntingdon EEA remains the second largest area of employment but in percentage terms it has grown faster than the Cambridge area. The other

overspill towns of St. Neots and Haverhill have caused employment in their areas to grow even faster, by 73% in the former case and as much as 159% in the latter. The Royston area, too, has grown faster than Cambridge, largely because of the growth of jobs in South Cambridgeshire. Saffron Walden exchange area has seen a growth that is low compared with most other places that concern us, but still much higher than the national rate of change. The Newmarket area has grown a little faster than the Cambridge area. Ely, so dominated by agriculture, has slightly declined. The detail is shown in Table 18.3. Figure 18.1 shows the courses of annual employment in each EEA during the fifties and sixties.

Table 18.3 Total employment in the employment exchange areas of the sub-region, 1951 and 1971

	Numbers		Increase	
EEA	1951	1971	No.	%
Cambridge	53,750	70,127	16,377	30.5
Huntingdon	12,519	18,550	6,031	48.2
St. Neots	4,106	7,098	2,992	72.9
Royston	4,837	7,388	2,551	52.7
Saffron Walden	5,082	5,890	808	15.9
Haverhill	3,250	8,414	5,164	158.9
Newmarket	8,255	11,233	2,978	36.1
Ely	7,806	7,691	−115	−1.5
Sub-Region	99,605	136,391	36,786	36.9
Great Britain ('000s)	20,705	22,715	2,010	9.7

Source: Department of Employment, E.R.II

A growth rate almost four times as high as the national average was achieved in a sub-region that, having a high initial dependence on a declining industry, in some ways got off to a bad start. Even if we omit the exchange areas having TDA schemes we find a rapid growth. The remaining five exchange areas had about 80,000 employees in 1951 and about 105,000 in 1971, representing a growth rate of over 30%, which is three times as high as the national rate. This occurred not only without any financial or other inducements, but actually despite a series of restrictions of one kind or another, especially in and close to Cambridge. There is little doubt that without these restrictions the sub-region would have witnessed a much higher rate of growth; and that in particular the Cambridge employment exchange area would have set the pace, possibly partly by taking jobs that went to South Cambridgeshire within the Royston EEA, and, to our knowledge, taking some that went instead to the market towns.

We may now look at the distribution of employment of different kinds over the sub-region. As one would expect, Cambridge has the lion's share in every sector, but a noticeably smaller fraction of agricultural employment than of other kinds of work. Probably the most fruitful way of looking at the data in Table 18.4 is to pick out the highest and lowest entry in each row, and to compare it with the percentage of the total employment attributable to that EEA. Cambridge has, so to speak, more than its share of service employment and less than its share of agricultural jobs. Huntingdon is biased towards construction, and slightly away from agriculture, but on the whole has an industrial structure very close to that of the sub-region, with almost equal percentages of the total in every sector. St. Neots and Royston

Table 18.4 Percentage of sub-regional employment in each employment exchange area by industry sector, 1971

EEA	Agriculture	Manufacturing	Construction	Services	Total
Cambridge	23.1	44.5	52.3	58.5	51.5
Huntingdon	12.7	13.8	14.4	13.5	13.6
St. Neots	8.6	7.4	3.9	3.7	5.2
Royston	9.7	7.2	3.7	4.2	5.4
Saffron Walden	8.3	3.7	4.2	4.2	4.3
Haverhill	8.3	11.6	5.0	3.0	6.2
Newmarket	15.9	8.0	7.6	7.5	8.2
Ely	13.4	3.7	8.9	5.4	5.6
Sub-Region	100.0	99.9	100.0	100.0	100.0

Source: Department of Employment, E.R.II

Table 18.5 Male and female employment in the sub-region by industry sector, 1971

		Males	Females	Total
I	Agriculture, forestry, fishing	7,198	1,658	8,856
II	Mining and quarrying	305	41	346
III	Food, drink and tobacco	2,611	1,812	4,423
IV	Chemicals and allied industries	1,886	545	2,431
V	Metal manufacture	47	9	56
VI	Engineering and electrical goods	10,312	4,657	14,969
VII	Shipbuilding and marine engineering	214	19	233
VIII	Vehicles	2,814	179	2,993
IX	Metal goods not elsewhere specified	1,022	245	1,267
X	Textiles	140	166	306
XI	Leather, leather goods and fur	336	209	545
XII	Clothing and footwear	222	742	964
XIII	Bricks, pottery, glass, cement etc.	1,824	226	2,050
XIV	Timber, furniture etc.	1,455	335	1,790
XV	Paper printing and publishing	3,698	1,647	5,345
XVI	Other manufacturing industries	2,540	1,574	4,114
	Manufacturing total orders II–XVI	29,426	12,406	41,832
XVII	Construction	9,155	528	9,683
XVIII	Gas, electricity and water	2,057	312	2,369
XVIX	Transport and communication	3,307	851	4,158
XX	Distributive trades	7,327	8,006	15,333
XXI	Insurance banking and finance	1,503	1,538	3,041
XXII	Professional and scientific services	13,251	17,264	30,515
XXIII	Miscellaneous services	6,465	6,363	12,828
XIV	Public administration and defence	5,184	2,367	7,551
	Services total orders XVIII–XXIV	39,094	36,701	75,795
	N.S.	139	86	225
	Total orders I–XXIV	85,012	51,379	136,391

Source: Department of Employment, E.R.II

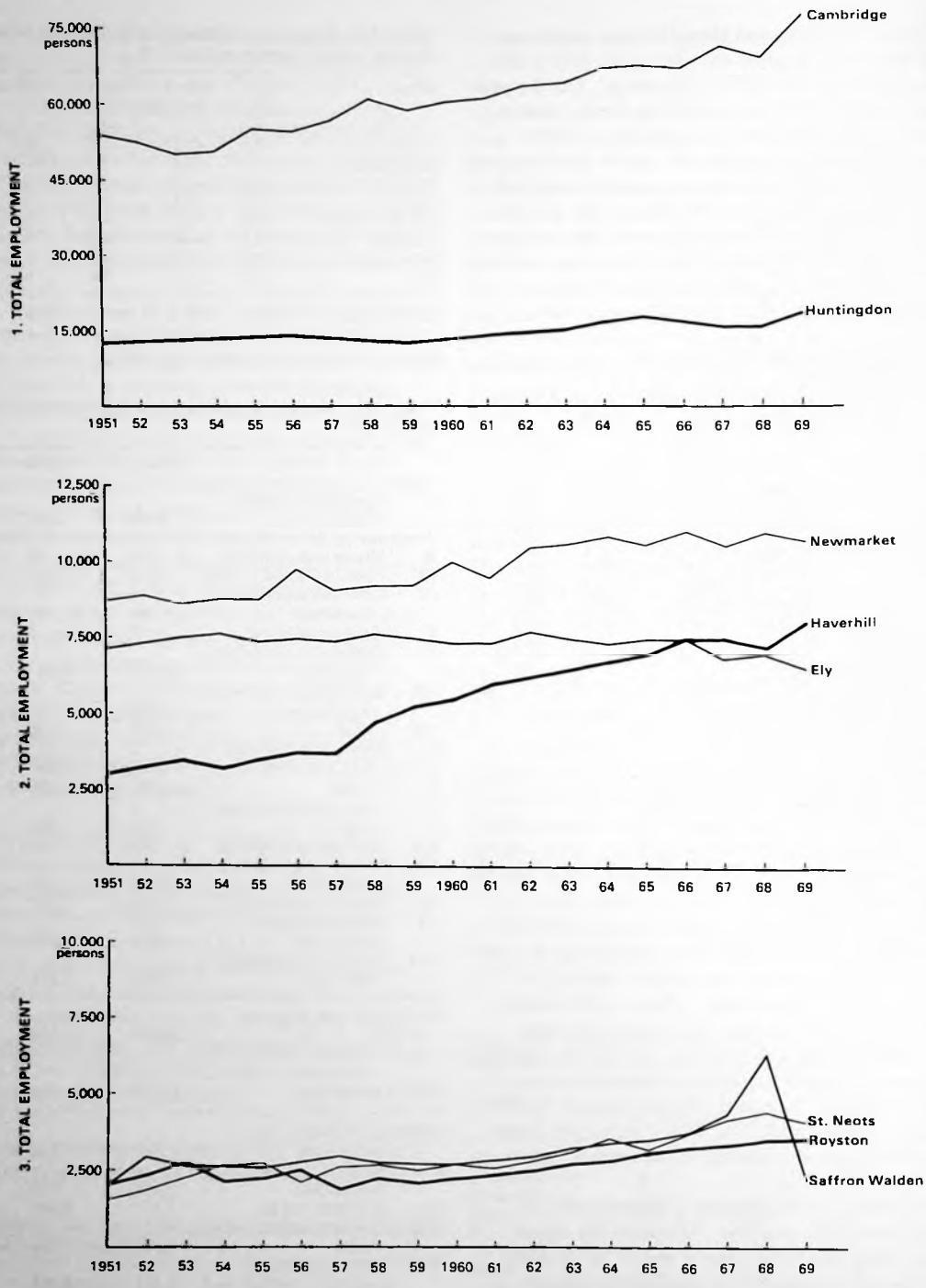


Figure 18.1 Annual employment by EEA, 1951-1969

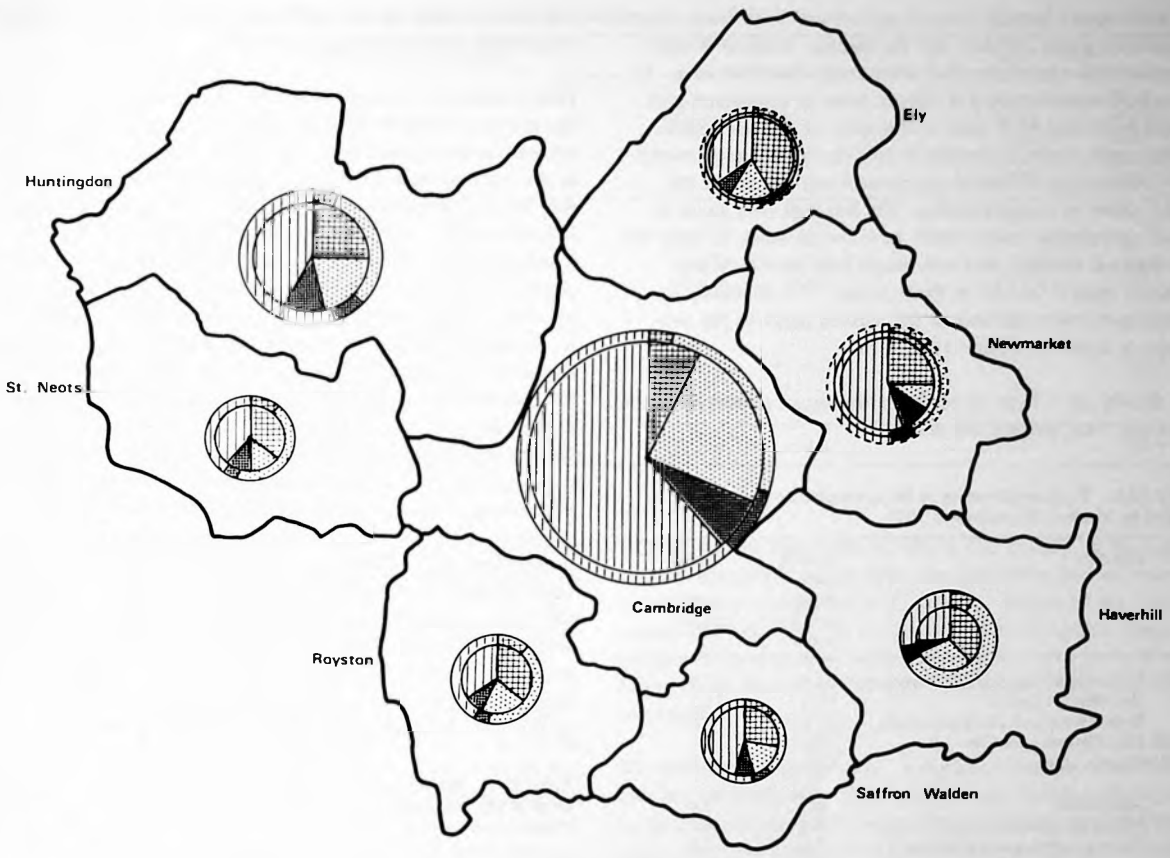
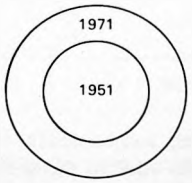
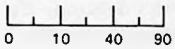


Figure 18.2 Change in distribution of employment by EEA 1951-71

Key



Total employment by EEA
(area of circle proportional to number of jobs)



radius scale (000's of jobs)

Sub-division into employment sector

- agriculture
- manufacturing
- construction
- services

are each tipped heavily towards agriculture, with their shares in manufacturing industry not far behind. Saffron Walden leans towards agriculture and away from manufacturing. In Haverhill, manufacturing is almost twice as important as it would be if that EEA were a miniature of the sub-region, while employment in services is half the level that it would be. Newmarket is heavily agricultural and has about its 'right' share of manufacturing. Ely has well over twice as much agricultural employment as it should have, to keep the sub-regional balance, and very much less manufacturing industry than it 'needs' in these terms. The changing distribution between Sectors in the various parts of the sub-region is shown in Figure 18.2.

We should say a little more about the broad structure. Tables 18.5 and 18.6 present the detail.

Table 18.6 Total employment in the sub-region by industry sector ranked by number of employees, 1971

	Industry	% total Sub-Region employ-ment	% total GB employ-ment
XXII	Professional and scientific services	22.4	12.9
XX	Distributive trades	11.2	11.7
VI	Engineering and electrical goods	11.0	9.8
XXIII	Miscellaneous services	9.4	8.1
XVII	Construction	7.1	6.0
I	Agriculture	6.5	1.6
XXIV	Public administration and defence	5.5	6.4
XV	Paper printing and publishing	3.9	2.8
III	Food, drink and tobacco	3.2	3.8
XIX	Transport and communication	3.0	7.1
XVI	Other manufacturing industries	3.0	1.6
XXI	Insurance banking and finance	2.2	4.3
VIII	Vehicles	2.2	3.7
IV	Chemicals and allied industries	1.8	2.3
XVIII	Gas, electricity and water	1.7	1.7
XIII	Bricks, pottery, glass, cement etc.	1.5	1.5
XIV	Timber, furniture etc.	1.3	1.3
IX	Metal goods not elsewhere specified	0.9	2.8
XII	Clothing and footwear	0.7	2.1
XI	Leather, leather goods and fur	0.4	0.2
II	Mining and quarrying	0.3	1.9
X	Textiles	0.2	2.8
VII	Shipbuilding and marine engineering	0.2	0.9
V	Metal manufacture	0.0	2.5

Source: Department of Employment, E.R.II

Service industries employ nearly 76,000 persons in the sub-region. This is over half of the total employment. Two-fifths of these people, numbering over 30,000, are in 'Professional and Scientific Services'. This group thus employs about 22% of the total workers in the sub-region. The national figure is about 13%.

The second largest industrial group is also in the services sector – the distributive trades, but employment here is not disproportionate when compared with the national figures. Just behind it comes the 'Engineering and electrical goods' industry, accounting for 11.0% of total employment, compared with a national figure of 9.8%.

This dominance of employment by service industries, and of the service industries themselves by professional and scientific services, is very important. As we can see from Table 18.7, in the country as a whole employment in service industries rose by 25% between 1951 and 1971; but in our sub-region it rose by 44%. Half of this growth occurred within the Cambridge EEA. Both in the sub-region and in the whole country, employment in banking, insurance and finance rose by about 125% over twenty years, as we show in Table 18.8. In the sub-region the percentage change in professional and scientific services was at the same very high level, whereas the national figure did not quite double over this period. Employment in the Distributive Trades increased by 48% in the sub-region, compared with 23% nationally. In short, the very rapid growth of total employment in the sub-region over this period of twenty years has been due to a very large degree to an initially high concentration of employment in professional and scientific services being subject to an even faster growth rate than the doubling that took place nationally, and to the sizeable but initially under-represented Distributive Trades growing at twice the national rate (largely, no doubt, because population growth was so fast). Between them, these two service industries contributed nearly 22,000 of the total increase of 37,000 jobs in the sub-region.

Table 18.7 Service industry employment in the employment exchange areas of the Sub-Region

EEA	1971		Absolute change 1951–71	% change 1951–71
	Nos.	%		
Cambridge	44,313	63.2	+11,823	+36.4
Huntingdon	10,244	55.2	+4,931	+92.8
St. Neots	2,844	40.1	+1,214	+74.5
Royston	3,151	42.6	+1,308	+41.3
Saffron Walden	3,187	54.1	+606	+23.5
Haverhill	2,253	26.8	+1,315	+140.2
Newmarket	5,727	51.0	+1,233	+27.4
Ely	4,076	53.0	+871	+27.2
Sub-Region	75,795	55.6	+23,301	+44.4
Great Britain ('000s)	11,834	52.1	2,394	+25.4

Source: Department of Employment, E.R.II

This increasing shift towards services, and especially towards these two kinds of services, probably adds to the stability of employment in the sub-region. As living standards rise, and society becomes more sophisticated, the demands for educational, medical and other professional and scientific services, for which there are few mechanical or electrical substitutes,* also rise. Employment in this sector, and in distribution, tends to be more stable than in manufacturing and construction, being less influenced by short-term fluctuations in the economy. This is especially true of the service employment associated with the University of Cambridge, which, unlike so much service employment, is very largely an export industry whose finance is independent of the local economy. When

* Even if there were more such substitutes, they might well engender further employment in an area so orientated towards the invention and manufacture of them.

Table 18.8 Service industry employment in Great Britain and the Sub-Region

SIC	Cambridge Sub-Region				Great Britain	
	Estimated employment 1971		Employment change 1951–71		% total employment 1971	% employment change 1951–71
	Nos.	%	Nos.	%		
XVIII Gas, electricity and water	2,369	1.7	+.72	+7.8	1.7	+3.9
XIX Transport and communication	4,158	3.0	−1,972	−32.2	7.1	−6.6
XX Distributive trades	15,333	11.2	+4,974	+48.0	11.7	+22.7
XXI Insurance banking and finance	3,041	2.2	+1,686	+124.4	4.3	+126.9
XXII Professional and scientific services	30,515	22.4	+16,936	+124.7	12.9	+99.6
XXIII Miscellaneous services	12,828	9.4	+1,353	+11.8	8.1	−4.7
XXIV Public admin. and defence	7,551	5.5	+152	+2.0	6.4	+6.2
Total	75,795	55.6	+23,301	+44.4	52.1	+25.4

Source: Department of Employment, E.R.II

national economic considerations adversely affect employment in this sector it is much more in the way of making expansion difficult, or possibly and to a minor extent of not replacing people who leave, rather than in reducing numbers by dismissals.

The changing role of other services is shown in Table 18.8. Miscellaneous services, including, for example, work in cinema, catering and domestic service, was a higher proportion of the total than the national figures show, but this is to be expected in a sub-region containing both tourist attractions and a great deal of hotel, college and other accommodation requiring employment in some form of service. Nationally, this sector has declined, but in the sub-region it has grown. The abolition of Selective Employment Tax removes one deterrent to its further growth.

Employment in public administration and defence has grown very slowly. In transport and communications the marked decline, compared with a much lesser decline nationally, emphasises the uneven incidence of economies. The Cambridge sub-region, with small scattered settlements, is one in which it is difficult to make public transport pay, and therefore one that has been particularly liable to the accountant's axe.

The fact that in gas, electricity and water the growth of employment has been faster than elsewhere is due mainly to the more rapid expansion of population. This is, however, a group of industries in which the level of employment depends on a variety of operations. While offices and service depots are fairly widely distributed, maintenance men may have responsibilities in an exchange area other than that in which their employment is registered, while power stations and other sources of supply will normally serve a very wide area. No great significance is to be attached to the sub-regional statistics of employment in this group of industries.

Within the Cambridge EEA, service industries account for almost two thirds of the total jobs, which probably helps to account for the low level of unemployment in the area. Most of it is within the city boundary. The low level of service employment in the Haverhill area is due mainly to the rapid growth of manufacturing since the mid-fifties and an unsatisfactory lag in the provision of services. Recently the pace of change has hastened. In St. Neots and Huntingdon much of the growth is associated with the growth of population; but in the latter EEA there has also been some development unrelated to this.

We now turn to agriculture. A separate chapter treats this industry in much more detail, and it also receives attention in the chapters devoted to the various employment exchange areas. Here we look at it sufficiently to see its main impacts on employment in the sub-region. The main figures are presented in Table 18.9.

Table 18.9 Agricultural employment in the employment exchange areas of the sub-region

EEA	1971		Absolute change 1951–71	% change 1951–71
	Nos.	%		
Cambridge	2,043	2.9	−1,774	−46.5
Huntingdon	1,127	6.1	−2,031	−64.3
St. Neots	760	10.7	−660	−46.5
Royston	860	11.6	−782	−47.6
Saffron Walden	734	12.5	−551	−42.9
Haverhill	739	8.8	−418	−36.1
Newmarket	1,406	12.5	−820	−36.8
Ely	1,187	15.4	−1,804	−60.3
Sub-Region	8,856	6.5	−8,840	−49.9
Great Britain ('000s)	358	1.6	−426	−54.3

Source: Department of Employment, E.R.II

In 1971, employment in agriculture totalled 8,856. This was half of its total twenty years earlier, which means that in proportional terms agricultural employment declined less rapidly than in the country as a whole. We have already seen its relative strengths in the various employment exchange areas. Although most of the agricultural jobs are in the exchange areas of Cambridge, Newmarket, Ely and Huntingdon, in descending order, the fact that these areas have very different populations has to be taken into account when we try to assess the importance of agriculture at a more local level.

For example, it accounts for over one job in seven in the Ely EEA, if we rely on data from the Department of Employment, which we know to underestimate agriculture's importance. The other EEA's with more than 10% of their employment in agriculture are St. Neots, Royston, Saffron Walden and Newmarket. Only less than 3% of employment in the Cambridge EEA is in agriculture.

The decline in the last twenty years was most marked in the Huntingdon Area, both absolutely and relatively, with Ely coming a close second. In each of these areas the decline was faster than in the country as a whole. What has made it more prominent in Ely is that, with neither a TDA agreement nor good communications, the area has attracted much less industry than has Huntingdon: and so the drift from the land has also been a drift from Ely.

This decline has been a national phenomenon arising out of a variety of factors associated with the pulls of manufacturing industry and the towns, mechanization and changes in organisation and productivity, wage and price agreements, food import possibilities and policies, and other factors. In this part of our study we have to accept it as a force that has operated more strongly than in most places because the sub-region was, and still is, very much an agricultural area.

Manufacturing industry accounts for rather less than a third of total employment. Table 18.10 shows that in 1971 there were just under 42,000 people employed in it in the sub-region, and over 18,000 of these were at work in the Cambridge EEA. It would be easy to misinterpret this. Although manufacturing industry in the Cambridge EEA provides over 44% of the sub-region's factory jobs, this reflects mainly the size of the Cambridge EEA compared with the rest of the sub-region. The percentage of jobs within the Cambridge EEA due to manufacturing is very low. It is 26.6%. The only employment exchange area in our sub-region that has a lower percentage is Ely. The national average is 40%. It is in the three TDA scheme towns of Huntingdon, St. Neots and Haverhill that manufacturing is most important in absolute numbers, but in Huntingdon it remains relatively low. The Royston area has attracted a great deal of manufacturing industry, unaided by TDA schemes but helped by the policy of Cambridgeshire County Council and its favourable location. The Newmarket area has also grown, largely through the growth of existing firms, but also by attracting new ones. Saffron Walden has experienced a modest expansion with the successful establishment of a small industrial estate. Little has happened to increase this sector in Ely. Even though in proportional terms it has grown by 38%, this represents only 424 jobs.

Table 18.10 Manufacturing employment in the employment exchange areas of the sub-region

EEA	1971		Absolute change 1951–71	% change 1951–71
	Nos.	%		
Cambridge	18,623	26.6	+5,171	+38.4
Huntingdon	5,771	31.1	+3,041	+111.4
St. Neots	3,113	43.9	+2,468	+382.6
Royston	3,017	40.8	+2,060	+215.3
Saffron Walden	1,559	26.5	+799	+105.1
Haverhill	4,846	57.6	+3,897	+410.6
Newmarket	3,365	30.0	+2,564	+320.1
Ely	1,538	20.0	+424	+38.1
Sub-Region	41,832	30.7	20,424	+95.4
Great Britain (000's)	9,095	40.0	−59	−0.6

Source: Department of Employment, E.R.II

More detail for the various exchange areas appears in other chapters. What stands out is that, despite a policy of severe restriction in Cambridge itself, the number of manufacturing jobs increased by almost two-fifths at a time when there was a very slight decline nationally. In three other exchange areas national and local policy actively favoured growth, and in Ely they did so less actively and ineffectively. In the sub-region as a whole manufacturing industry doubled its employment, and a quarter of this increase went to the heart of the Sub-Region, where in terms of policy it was least welcome.

In Table 18.11 we can see a more detailed picture of the changes that have taken place since 1951. The figures in this table have been adjusted to facilitate certain comparisons despite a change in the Standard Industrial Classification in 1968. This concerns especially the industrial group that was most important both nationally and sub-regionally – 'Engineering and Electrical Goods'. We can see that in the sub-regional structure of employment this was even more important than in the country as a whole, accounting for 11% of all jobs. Table 18.12 attempts a comparative subdivision of this industrial group and shows the very rapid percentage growth in instrument engineering that now accounts for about 2.5% of all employment. An important feature of this growth is that much of it has been outside the Cambridge area. Along with electrical engineering, which experienced a greater numerical growth, it has provided new jobs in various areas. Both of these industries have favoured Royston and Haverhill, and electrical engineering has also flourished in Huntingdon, Saffron Walden and Newmarket exchange areas. In mechanical engineering, too, the dominance of the Cambridge area has been reduced, with a large part of the growth going to the rest of the sub-region, leaving only the Royston area unaffected. Nevertheless, the number of engineering jobs in the Cambridge EEA increased from 5,230 in 1951 to 8,106 in 1971.

Just as the sub-regional decline in agriculture reflects a national phenomenon, so does this growth in engineering; and once again, but for different reasons, the pace of change has been exaggerated in the sub-region. These branches of engineering meet the requirements of many varied and changing developments. They are adaptable, meeting both changes in demand and competition by inventiveness and changes in both techniques and products. The sub-region, with its university and many research establishments provides an attractive focus for firms that feel that they may benefit from closer contacts with scientific research. The name 'Cambridge', in a firm's title or address, is also regarded as an asset by some of the industrialists in this field. There is a strong reputation associated with it, so that

Table 18.11 Manufacturing employment in Great Britain and the sub-region

SIC		Cambridge Sub-Region				Great Britain	
		Estimated employment 1971		Employment change 1951–71		% Total employment 1971	% Employment change 1951–71
		Nos.	%	Nos.	%		
II	Mining and quarrying	346	0.2	−34	−8.9	1.9	−50.9
III	Food, drink and tobacco	4,423	3.2	−1,163	−20.8	3.6	+4.4
IV	Chemicals and allied industries	2,431	1.8	+1,711	+237.6	2.4	+10.4
V	Metal manufacture	56	0.0	+56		2.5	−4.4
VI	Engineering and electrical goods	14,969	11.0	+8,571	+134.0	9.8	+33.4
VII	Shipbuilding and marine engineering	233	0.2	+140	+150.5	0.9	−28.9
VIII	Vehicles	2,993	2.2	+1,940	+184.2	3.7	+8.5
IX	Metal goods not elsewhere specified	1,267	0.9	+1,076	+563.3	2.8	+30.0
X	Textiles	306	0.2	−185	−37.7	2.8	−38.7
XI	Leather, leather goods and fur	545	0.4	+217	+66.2	0.2	−31.6
XII	Clothing and footwear	964	0.7	−238	−19.8	2.1	−26.0
XIII	Bricks, pottery, glass, cement, etc.	2,050	1.5	+1,137	+124.5	1.5	−0.2
XIV	Timber, furniture etc.	1,790	1.3	+833	+87.0	1.3	−1.5
XV	Paper, printing, publishing	5,345	3.9	+3,148	+143.3	2.8	+20.9
XVI	Other manufacturing industries	4,114	3.0	+3,215	+357.6	1.6	+30.7
	Total	41,832	30.7	+20,424	+95.6	40.0	−0.6

Source: Department of Employment, E.R.II

Table 18.12 Electrical and engineering employment in the sub-region

Industry	Numbers employed		Increase
	1951	1971	
Mechanical engineering	1,721	4,523	2,802
Instrument engineering	791	3,483	2,692
Electrical engineering	3,886	6,963	3,077
Engineering and electrical goods	6,398	14,969	8,571

Source: Department of Employment, E.R.II

an electrical or instrument engineering firm entitled to boast of a Cambridge connection is almost as favoured as Welsh whisky would be disfavoured.

Many of the firms that are new to the sub-region have come to the expanding towns through a TDA scheme. Firms in this industry are often fairly mobile. Many require no unusual provision and can fit into existing factory units. On the other hand, the bulk of the increase in jobs since 1951 has arisen from firms that were already established in the area. Sometimes they have expanded their employment on their existing site, but where this has been impracticable or counter to official policy, they have set up secondary establishments, usually in or close to one of the market towns. In some cases the greater availability of labour in these areas, attributed by some to official policy towards Cambridge, has also been a factor in this de-centralisation.

The second largest manufacturing industrial group in the area is 'Paper, Printing and Publishing'. This, too, has grown very rapidly, and many times more rapidly than elsewhere. It accounts for almost 4% of the sub-region's employment. Some of it is associated directly or indirectly with the University, the Book-trade, or newspapers; and half of it is located in the Cambridge area. On the other hand, some of it is much more associated with the needs of manufacturing industry and agriculture, especially since this classification includes the manufacture of paper board and packing products. The industry has developed particularly in the St. Neots and Newmarket areas.

Food, drink and tobacco manufacturing industries have declined locally, to be less important than they were, but still a major group. The rationalisation of various major firms, a decline in agriculture, and the closure of many local breweries are some of the causes.

Vehicle building, concentrated in Cambridge, has almost doubled, and would probably have grown faster if policy had permitted it. This is also true of much that is described as 'other manufacturing', except that here the degree of fragmentation and diversification permits de-centralisation more easily. The TDA towns have benefited greatly.

Finally, in this brief review of employment structure, we come to the construction industry. This is an industry in which statistics of employment are very bad, especially in recent years when many people have for one reason or another avoided the statistical net. The official statistics are shown in Table 18.13. The small decreases in five of the exchange areas may be real, but could be fictitious. The St. Neots figure illustrates the need for caution when comparing annual data in this sensitive industry, since in 1970

Table 18.13 Construction employment in the employment exchange areas of the sub-region

EEA	1971		Absolute change 1951–71	% change 1951–71
	Nos.	%		
Cambridge	5,062	7.2	+1,071	+26.8
Huntingdon	1,396	7.5	-78	-5.9
St. Neots	378	5.3	-33	-8.0
Royston	358	4.8	-29	-7.5
Saffron Walden	407	6.9	-49	-10.7
Haverhill	485	5.8	+279	+135.4
Newmarket	732	6.5	-2	-0.3
Ely	865	11.2	+369	+74.4
Sub-Region	9,683	7.1	+1,684	+21.0
Great Britain ('000s)	1,366	6.0	47	+3.6

Source: Department of Employment, E.R.II

employment was double its level in 1971. In the sub-region as a whole, employment has grown by 21%, or more if the tendency to avoid being counted has increased. The concentration in Cambridge is to some extent misleading because many workers registered in this exchange area will from time to time be doing jobs further afield. The relatively high figure for Ely includes workers in sand and gravel.

A more careful look at the detailed data reveals nothing unexpected. Except for major construction schemes, employment in this industry moves much as housebuilding does. A new by-pass, or a new hospital, will give it a temporary boost, but broadly it is population change and housing that determines its pace.

While employment has grown by 37% in the sub-region compared with a growth of 10% nationally, between 1951 and 1971, female employment has increased by 60%, compared with 21.2% for the country as a whole. This disparity between the rates reflects, of course, not only the more rapid growth of the region but also a shift away from its comparatively poor provision for females in 1951. In 1971 the percentage of all jobs occupied by women in the sub-region was almost identical to the national average, of 37.8%. In 1951 the sub-regional percentage was 32.2%, compared with the national figure of 34.2%. Thus, while the employment prospects for women have improved nationally, in the sub-region they have improved rather more, partly because there was more room for improvement. For most of the employment exchange areas the percentage of females in the total work force is within a couple of points of the national average. Newmarket and Ely have low percentages and for the Ely area it would no doubt have been even lower if male employment had not declined. Nevertheless, all areas show a faster percentage rate of growth for females than for males. Even when measured in absolute numbers, female employment has increased by more than male employment in six of the exchange areas. In Cambridge, male employment increased by slightly more, while in the Haverhill area there were about three new male jobs for every two new female jobs. Some detail appears in Table 18.14, and in Figure 18.3.

There has been a very important change in attitudes towards female employment since the war, both on the part of married women and their husbands and in the boardroom and employment exchanges. This has operated nationally. In the Cambridge Sub-Region four other factors have been important. The decline of agriculture affected male labour more than female labour, and so constituted a force for raising the ratio of female to male employment. One of the most rapidly expanding sectors, the service industries, and especially the distributive trades, normally has a high proportion of females. This is also true of the rapidly growing engineering and electrical goods industry. Finally, many of the manufacturing firms setting up under the TDA schemes favoured female employment, partly because of lower wage rates and a greater relative abundance. On the other hand, local authority policy favoured the advent of firms providing a high proportion of male employment.

The share of female employment in total employment in these sectors is shown in Table 18.15. It can be seen that it has grown in most of the service industries but fallen in the majority of the manufacturing industries. Table 18.16 presents a different interpretation of the data. It shows that manufacturing industry taken as a whole accounted for substantially the same proportion of total female employment in 1971 as in 1951. Compared with the national picture, this is quite an achievement by feminist standards. The service sector, accounting for 56% of all employment in the sub-region, took up over 70% of the female jobs.

Table 18.14 Male and female employment in the employment exchange areas of the sub-region

EEA	Estimated employment			Increase in employment 1951–71			
	1971			Male		Female	
	Male	Female	% Female	No.	%	No.	%
Cambridge	43,129	26,998	38.5	8,329	23.9	8,048	42.5
Huntingdon	11,141	7,409	39.9	2,544	29.6	3,487	88.9
St. Neots	4,407	2,691	37.9	1,413	47.2	1,579	142.0
Royston	4,721	2,667	36.1	1,073	29.4	1,478	124.3
Saffron Walden	3,670	2,220	37.7	125	3.5	683	44.4
Haverhill	5,383	3,031	36.0	3,095	135.3	2,069	215.1
Newmarket	7,545	3,688	32.8	1,327	21.3	1,651	81.0
Ely	5,016	2,675	34.8	-470	-8.6	355	15.3
Sub-Region	85,012	51,379	37.7	17,436	25.8	19,350	60.4
Great Britain ('000s)	14,131	8,584	37.8	511	3.7	1,499	21.2

Source: Department of Employment, E.R.II

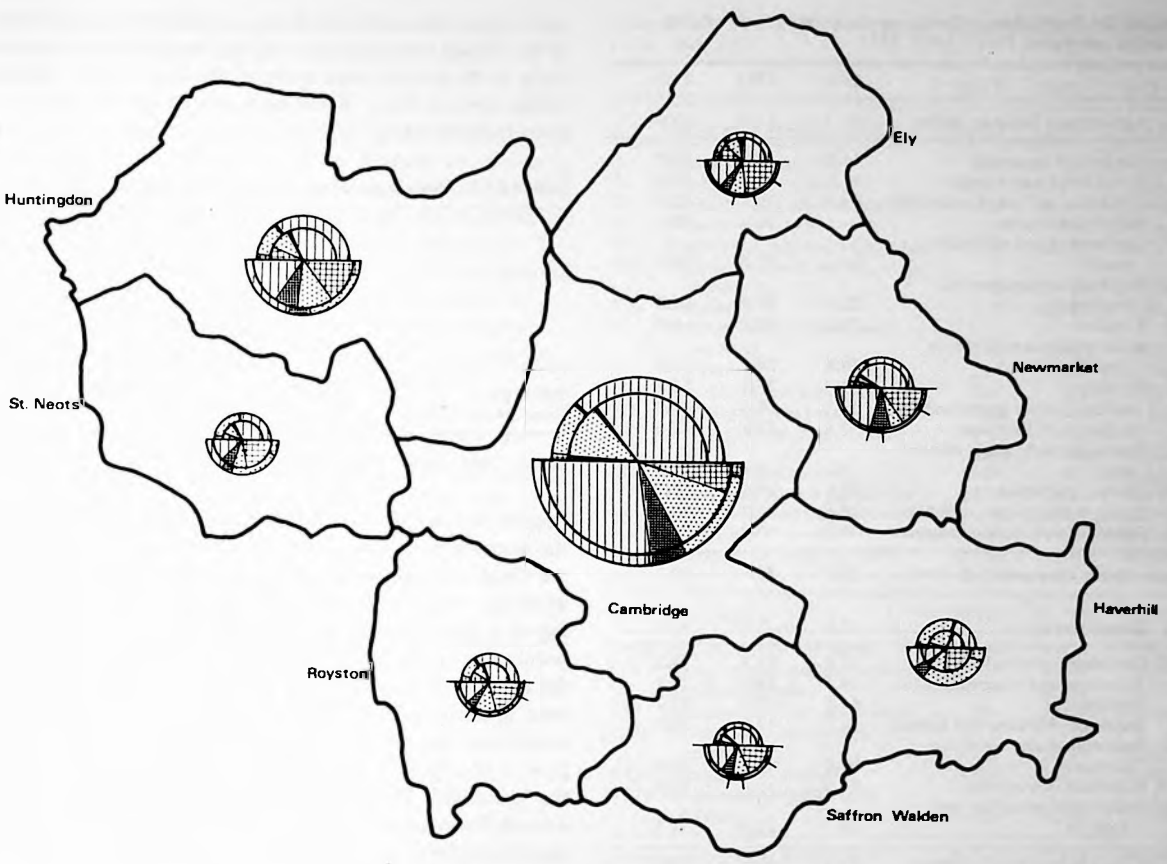
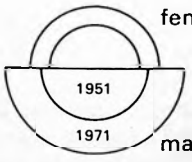
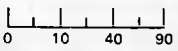


Figure 18.3 Change in distribution of male/female employment by EEA 1951-71

Key



Total male/female employment by EEA
(area of circle proportional to number of jobs)



radius scale (000's of jobs)

Sub-division into employment sector

- agriculture
- manufacturing
- construction
- services

Table 18.15 Proportion of female employment in each industry Cambridge sub-region 1951*, 1961, 1971

		1951*	1961	1971
I	Agriculture, forestry, fishing	11.3	13.7	19.0
II	Mining and quarrying	16.8	7.0	11.8
III	Food, drink and tobacco	36.5	41.3	41.0
IV	Chemicals and allied industries	25.1	25.6	22.4
V	Metal manufacture	–	26.3	16.1
VI	Engineering and electrical goods	36.1	32.5	31.1
VII	Shipbuilding and marine engineering	22.6	16.9	8.2
VIII	Vehicles	20.1	10.3	6.0
IX	Metal goods not elsewhere specified	39.8	24.9	19.3
X	Textiles	39.8	50.7	54.2
XI	Leather, leather goods and fur	24.7	30.7	38.3
XII	Clothing and footwear	72.8	72.8	77.0
XIII	Bricks, pottery, glass, cement etc.	8.8	8.5	11.0
XIV	Timber, furniture etc.	27.5	18.0	18.7
XV	Paper, printing and publishing	28.6	34.2	30.8
XVI	Other manufacturing industries	49.8	48.8	38.8
Manufacturing total orders II–XVI		35.0	31.6	29.7
XVII	Construction	2.1	2.9	5.5
XVIII	Gas, electricity and water	15.8	11.2	13.2
XIX	Transport and communication	19.5	14.6	20.5
XX	Distributive	44.6	47.7	52.2
XXI	Insurance, banking and finance	36.2	42.8	50.6
XXII	Professional and scientific services	55.0	57.3	56.6
XXIII	Miscellaneous services	54.6	55.4	49.6
XXIV	Public administration and defence	26.7	25.6	31.3
Services total orders XVIII–XXIV		42.6	45.7	48.4
Grand total orders I–XXIV		32.2	34.4	37.7

* Difficulties of Bulk Exchange adjustments mean figures for individual industries in 1951 less reliable than in other years especially for the service industries.

Source: Department of Employment, E.R.II

Table 18.16 Female employment in each main industrial sector as a percentage of total female employment

	1951		1971	
	Sub-Region	GB	Sub-Region	GB
Agriculture	6.2	1.5	3.2	0.8
Manufacturing	23.5	40.7	24.1	30.6
Construction	0.5	0.5	1.0	1.0
Services	69.7	57.3	71.4	67.4
N.S.	–	–	0.2	0.2
Total	99.9	100.0	99.9	100.0

Source: Department of Employment, E.R.II

Employment of females in agriculture is, of course, much wider than that revealed by employment statistics. According to these, it constitutes 3.2% of the total female employment in the sub-region and it declined less rapidly over the period we are examining than did male employment in agriculture. This latter revelation is probably true, as much of the female employment is within the family, and more likely to be retained than some of the hired hands, who are usually men or boys. Some more precise information is given in Table 18.17.

Table 18.17 Female employment in agriculture in the sub-region

	Employment 1971		Employment Change 1951–71	
	No.	% total female employment	No.	%
Sub-Region	1,658	3.2	-336	-16.8
Great Britain ('000s)	67.3	0.8	-38.1	-36.1

Source: Department of Employment, E.R.II

Despite the fact that the proportion of people working in the manufacturing industries who are females has fallen in the Cambridge Sub-Region, the actual number of females working in these industries has grown by almost 30%; and this at a time when the national figure has declined. This is mainly due to the rapid growth of this sector of industry, to the specialisation within it, to the fact that in 1951 there were so many women in the Cambridge sub-region who were employable but without work, and to the rapid overall growth of population. The most rapid growth has been in the towns with TDA schemes, in the Newmarket area and around Royston, where, nevertheless, the proportion of manufacturing jobs occupied by women is low. The slowest growth of female employment has been in the Cambridge and Ely exchange areas. In the former planning policy has restricted growth at a time when a growing service sector has competed for female labour. In the latter there has been little success in attempts to expand manufacturing industry. Some detail appears in Table 18.18.

Table 18.18 Female employment in the manufacturing industries of the employment exchange areas of the sub-region

EEA	Estimated employment 1971		Employment change 1951–71	
	No.	% of total manuf.	No.	%
Cambridge	5,383	28.9	394	7.9
Huntingdon	1,625	28.2	756	87.0
St. Neots	1,128	36.2	916	432.1
Royston	717	23.8	543	312.1
Saffron Walden	469	30.1	284	153.5
Haverhill	1,643	33.9	1,156	237.4
Newmarket	984	29.2	820	500.0
Ely	457	29.7	45	10.9
Sub-Region	12,406	29.7	4,914	65.6
Great Britain ('000s)	2,630.2	28.9	-251.6	-8.7

Source: Department of Employment, E.R.II

Over a third of the female employment in manufacturing industries is in the Electrical and Engineering goods industry. Other important industrial groups are Food and Drink, Paper

and Printing and Other Manufacturing. In each of these groups women and girls occupy between 12% and 15% of the jobs.

The service industries employ over 70% of the women and girls at work in the sub-region. In the Newmarket, Ely and Cambridge areas females have a smaller share of total service employment than the national average share, while in the Haverhill, Huntingdon and Royston areas the share is particularly high, being over 53% compared with the national average of 49%. These three areas are also the ones that have witnessed the fastest growth rates in female employment in this sector. Half of the total increase has gone to the Cambridge area. Table 18.19 gives some detail.

Table 18.19 Female employment in the service industries of the employment exchange areas of the sub-region

EEA	Estimated employment 1971		Employment change 1951–71	
	No.	% of total services	No.	%
Cambridge	20,945	47.3	7,266	53.1
Huntingdon	5,495	53.6	2,969	117.5
St. Neots	1,398	49.2	619	79.5
Royston	1,745	55.4	939	116.5
Saffron Walden	1,603	50.3	340	26.9
Haverhill	1,200	53.3	793	194.8
Newmarket	2,450	42.8	798	48.3
Ely	1,865	45.7	444	31.2
Sub-Region	36,701	51.1	14,168	38.6
Great Britain ('000s)	5,785.8	48.9	1,727.7	42.6

Source: Department of Employment, E.R.II

We may note that in this sub-region that is so dominated by service employment, more than half of the total employment in this sector is accounted for by female jobs. Almost a half of these are in the Professional and Scientific Services group. A fifth of them are in Distribution and one sixth of them in Miscellaneous Services.

Construction employs about one percent of the female labour force, mainly in clerical posts.

There is little need to look separately at the detail of male employment shown in Table 18.20, but a few points may be made here to supplement the remarks made elsewhere in the Report. The decline in agriculture was almost entirely a decline in male employment, but even now almost a tenth of the men in this sub-region work on the land. Manufacturing industries now employ over a third of all males, compared with a fifth in 1951. In the fifties the largest increase was in Engineering and Electrical Goods, where male employment in the sub-region rose by nearly 3,000, half of this being in the Cambridge area. The Vehicles industry increased its male labour force by over 1,300, representing an increase of 150% in a single decade.

Three quarters of this increase was in the Cambridge area. The paper industry's male employment rose by 600, and half of this was in or close to Cambridge. The Chemicals industry more than doubled the number of men it employed, with an increase of rather less than 600. About half of this growth was in the Cambridge employment area.

In the next decade the dominance of engineering and electrical goods as a provider of more jobs for men and boys continued. Its sub-regional employment rose by nearly a half, but now the TDA-encouraged growth in Huntingdon and St. Neots, and the setting up of a Cambridge based subsidiary in Ely, reduced Cambridge's share of the increase to a little less than a quarter. Whereas national male employment in the Vehicle Industries fell, the sub-region saw a growth of nearly 30%. Most of this was in the Newmarket area, while in the Cambridge area male employment in this sector fell by about 150. Paper printing and publishing and the chemical and allied industries showed substantial growth in male jobs, again with nearly a third, or even more, of the growth in Cambridge. Male employment in Food, Drink and Tobacco declined by a third – to 2,200 – in the fifties but rallied slightly in the sixties.

Table 18.20 Male employment in each industry of the sub-region: 1951, 1961, 1971

		1951*	1961	1971
I	Agriculture, forestry, fishing	15,702	11,648	7,198
II	Mining and quarrying	316	761	305
III	Food, drink and tobacco	3,549	2,205	2,611
IV	Chemicals and allied industries	539	1,107	1,886
V	Metal manufacture	–	109	47
VI	Engineering and electrical goods	4,086	6,997	10,312
VII	Shipbuilding and marine engineering	72	98	214
VIII	Vehicles	841	2,185	2,814
IX	Metal goods not elsewhere specified	115	514	1,022
X	Textiles	278	139	140
XI	Leather, leather goods and fur	247	169	336
XII	Clothing and footwear	327	309	222
XIII	Bricks, pottery, glass, cement etc.	833	1,293	1,824
XIV	Timber, furniture etc.	694	905	1,455
XV	Paper, printing and publishing	1,568	2,174	3,698
XVI	Other manufacturing industries	451	917	2,540
Manufacturing total orders II–XVI		13,916	19,882	29,426
XVII	Construction	7,827	9,748	9,155
XVIII	Gas, electricity and water	1,850	1,820	2,057
XIX	Transport and communication	4,934	4,201	3,307
XX	Distributive trades	5,735	7,251	7,327
XXI	Insurance banking and finance	864	1,095	1,503
XXII	Professional and scientific services	6,115	8,129	13,251
XXIII	Miscellaneous services	5,204	5,235	6,465
XXIV	Public administration and defence	5,425	4,984	5,184
Services total orders XVIII–XXIV		30,127	32,715	39,094
Grand total orders I–XXIV		67,576	74,043	85,012

* Difficulties of Bulk Exchange adjustments mean figures for individual industries in 1951 less reliable than in other years especially for the service industries.

Source: Department of Employment, E.R.II

In the fifties male employment in Professional and Scientific services increased by a third. About 1,600 men and boys found new jobs in this category in the Cambridge EEA, representing about 80% of the sub-regional increase. The distributive trades increased their male employment by over 1,500. The largest increases were in the Cambridge area (600) and the Huntingdon area (300). Male employment in Transport and Communication fell by nearly 500.

The sixties tell a slightly different story. Once more the lead came from Professional and Scientific Services, increasing by nearly two-thirds, with over 3,000 additional male jobs in the Cambridge area. Transport hastened its decline, with a loss of nearly 900 in the sub-region mainly in the Cambridge area. Miscellaneous services expanded by 23% to provide just over 1,200 new male jobs. A significant change was that male employment in public administration rose by 500 in the Cambridge EEA but declined almost everywhere else in the sub-region.

We now consider some of the reasons for the very high growth of employment in the last twenty years. In Table 18.21 we show the way in which total employment was distributed, first in 1961 and then in 1971, between industries whose national employment figures were growing, stable, or declining. It can be seen that in each of these years, the sub-region had a higher proportion of its employment in nationally expanding sectors than did the country as a whole; and that in 1971 the position was even more favourable to the sub-region than it had been ten years earlier.

Table 18.21(A) Industries growing nationally, 1961–71

SIC		Proportion of total employment			
		1961		1971	
		GB	Sub-Region	GB	Sub-Region
III	Food, drink and tobacco	3.6	3.3	3.8	3.2
VI	Engineering and electrical goods	9.5	9.2	9.8	11.0
IX	Metal goods not elsewhere specified	2.5	0.6	2.8	0.9
XIV	Timber, furniture etc.	1.3	1.0	1.3	1.3
XV	Paper, printing and publishing	2.7	2.9	2.8	3.9
XVI	Other manufacturing industries	1.4	1.6	1.6	3.0
XXI	Insurance, banking and finance	2.4	1.7	4.3	2.2
XXII	Professional and scientific services	9.1	16.8	12.9	22.4
XXIV	Public administration and defence	5.6	5.9	6.4	5.5
		38.3	43.0	45.7	53.4

Source: Department of Employment, E.R.II

Table 18.21(B) Industries stable nationally, 1961–71

SIC		Proportion of total employment			
		1961		1971	
		GB	Sub-Region	GB	Sub-Region
IV	Chemicals and allied industries	2.4	1.3	2.3	1.8
XVIII	Gas, electricity and water	1.7	1.8	1.7	1.7
		4.1	3.1	4.0	3.5

Source: Department of Employment, E.R.II

Table 18.21(C) Industries declining nationally 1961–71

SIC		Proportion of total employment			
		1961		1971	
		GB	Sub-Region	GB	Sub Region
I	Agriculture, forestry and fishing	2.7	12.0	1.6	6.5
II	Mining and quarrying	3.3	0.7	1.9	0.3
V	Metal manufacture	2.8	0.1	2.5	0.0
VII	Shipbuilding and marine engineering	1.1	0.1	0.9	0.2
VIII	Vehicles	4.0	2.2	3.7	2.2
X	Textiles	3.7	0.2	2.8	0.2
XI	Leather, leather goods and fur	0.3	0.2	0.2	0.4
XII	Clothing and footwear	2.5	1.0	2.1	0.7
XIII	Bricks, pottery, glass, cement etc.	1.5	1.3	1.5	1.5
XVII	Construction	6.7	8.9	6.0	7.1
XIX	Transport and communications	7.4	4.4	7.1	3.0
XX	Distributive trades	12.6	12.3	11.7	11.2
XXIII	Miscellaneous services	8.9	10.4	8.1	9.4
		57.5	53.8	50.1	42.7

Source: Department of Employment, E.R.II

Table 18.22 presents data for the industrial groups whose overall employment has just been summarised. There were fourteen industrial groups whose national employment levels fell between 1961 and 1971. Only three of these were proportionally more important in 1961 as employers in the sub-region than in the country as a whole. One was Agriculture, Forestry and Fishing, which declined by 34% during the sixties (compared with a national decline of 40%). Employment in Construction, expected to be high in a fast growing sub-region, declined but much less rapidly than elsewhere. The national decline of 8% in Miscellaneous Services was countered by an increase of 20% in the sub-region. Thus we see that not only did the sub-region have few over-represented declining industries in 1961, but also that even these behaved more favourably in the sixties than they did elsewhere in the country. The other declining industries that had some representation in the sub-region tended to emphasise this story. In fact, only three industries declined more rapidly in our study area than one might have expected on national considerations. These were Mining and Quarrying, Metal Manufacture and Transport and Communications. The first two of these have never been either significant or welcomed in the sub-region. The third has been, and is, fairly important. We have already discussed the reasons for its decline. In seven of the nationally declining industries there was sub-regional growth.

There is little need to relate the experience of the other, nationally growing, or stable, industries in detail. Except

Table 18.22 Employment change by industry group, 1961–71: Cambridge sub-region and Great Britain

1958 SIC		Cambridge Sub-Region		Great Britain (000's)	
		No.	%	No.	%
I	Agriculture	-4,649	-34.4	-240.3	-40.1
II	Quarries	-472	-57.7	-314.9	-42.7
III	Food and drink	+668	+17.8	+49.7	+6.1
IV	Chemicals	+943	+63.4	+2.0	+0.4
V	Metal manufacture	-92	-62.2	-60.3	-9.5
VI	Engineering and electrical goods	+4,607	+44.5	+103.6	+4.9
VII	Boat building	+115	+97.5	-52.4	-20.7
VIII	Vehicles	+558	+22.9	-61.6	-6.9
IX	Other metal goods	+583	+85.2	+72.6	+12.9
X	Textiles	+24	+8.5	-209.6	-24.8
XI	Leather	+301	+123.4	-9.6	-15.2
XII	Clothing	-174	-15.3	-91.9	-16.0
XIII	Bricks etc.	+637	+45.1	-11.5	-3.3
XIV	Timber etc.	+687	+62.3	+12.2	+4.2
XV	Paper and printing	+2,039	+61.7	+15.1	+2.4
XVI	Other manufacturing industries	+2,324	+129.8	+46.7	+15.2
	Manufacturing	+12,748	+43.8	-509.7	-5.3
	Construction	-352	-3.5	-144.8	-9.6
XVIII	Utilities	+320	+15.6	-4.5	-1.2
XIX	Transport	-764	-15.5	-53.0	-3.2
XX	Distribution	+1,465	+10.6	-181.2	-6.4
XXI	Insurance banking and finance	+1,126	+58.8	+426.6	+76.2
XXII	Professional and scientific services	+11,499	+60.5	+863.0	+41.9
XXIII	Miscellanous services	+1,085	+9.2	-158.4	-7.9
XXIV	Public administration and defence	+847	+12.6	+167.9	+13.1
	Services	+15,578	+25.9	+1,060.4	+9.8
	N.S.	+134		59.0	
Total		+23,459	20.8	+225.0	+1.0

Source: Department of Employment, E.R.H

for Public Administration and Defence, every growing sector that was overrepresented in the sub-region in 1961 grew even more rapidly during the next ten years than it did nationally. So, in particular, did employment in Engineering and Electrical goods.

Another way of looking at these data is to estimate the rate at which the Sub-Region's employment would have grown if all of its industries had grown at national rates. We find that manufacturing employment would have grown by only about 1%, service employment by 14%, and total employment by 2%. If we now reverse the question, and ask about the rate at which British employment would have changed if every sector had grown (or declined) nationally at the same rate as in the sub-region, we find that the national level of employment would have risen by 20%, with a growth of 28% in manufacturing and 19% in services.

The results are given more precisely in Tables 18.23 and 18.24. We can use them to get very rough ideas of the extent to which the changes in the sixties in employment levels can be attributed to the industrial structure with which the decade began. For example, if every industry had grown at its national rate, then total sub-regional employment would have risen by 1.9% compared with the actual national increase of 1%. This difference must be because the various industries were differently represented in the sub-region than elsewhere in the country. We can say that of the 20.8% overall growth in the sub-region, 1% can be explained by national growth rates, and 0.9% by the industrial structure. What of the rest?

Here we turn to the other question. National employment would have grown not by 1.0% but by 19.8% if the nation's industries had grown at Cambridge rates. The difference of 18.8% represents the component in the sub-region's growth that is due to the peculiar local growth rates, and inexplicable in terms of national experience or industrial structure.

Similarly, in service employment the sub-regional growth of 25.9% can be attributed to a national experience of 9.8% growth, a structural component of 4.0%, and a local growth component of 9.0%: but there remains 3.1% unattributed. This is not surprising, because even within an industrial group there are many industries, each with its own growth rate, and differently represented in different parts of the country. An analysis as crude as this cannot be expected to produce a neat division of a total into nicely balanced identifiable components: but it helps to indicate broad magnitudes. In manufacturing industry the structural component turns out to be 6.5%, while the local growth component was 33.4%.

Table 18.23 Calculation of structure component

		Sub-Regional 1961	National growth rates '61–'71	Expected employment in Sub-Region in 1971*
I	Agriculture, forestry, fishing	13,505	−40.1	8,090
II	Mining and quarrying	818	−42.7	469
III	Food, drink and tobacco	3,755	+6.1	3,984
IV	Chemicals and allied industries	1,488	+0.4	1,494
V	Metal manufacture	148	−9.5	134
VI	Engineering and electrical goods	10,362	+4.9	10,870
VII	Shipbuilding and marine engineering	118	−20.7	94
VIII	Vehicles	2,435	−6.9	2,267
IX	Metal goods not elsewhere specified	684	+12.9	772
X	Textiles	282	−24.8	212
XI	Leather, leather goods and fur	244	−15.2	207
XII	Clothing and footwear	1,138	−16.0	956
XIII	Brick, pottery, glass, cement etc.	1,413	−3.3	1,366
XIV	Timber, furniture, etc.	1,103	+4.2	1,149
XV	Paper printing and publishing	3,306	+2.4	3,385
XVI	Other manufacturing industries	1,790	+15.2	2,062
Manufacturing total orders II–XVI		29,084		29,421
XVIII	Construction	10,035	−9.6	9,072
XVIII	Gas, electricity and water	2,049	−1.2	2,024
XIX	Transport and communication	4,922	−3.2	4,765
XX	Distributive trades	13,868	−6.4	12,980
XXI	Insurance banking and finance	1,915	+76.2	3,374
XXII	Professional and scientific services	19,016	+41.9	26,984
XXIII	Miscellaneous services	11,743	−7.9	10,815
XXIV	Public administration and defence	6,704	+13.1	7,582
Services total orders XVIII–XXIV		60,217		68,524
N.S.		91		
Grant total orders I–XXIV		112,932		115,107

* i.e. Sub-Regional employment in 1971 if the national growth rates are applied to the 1961 sub-regional employment levels

Source: Department of Employment, E.R.II.

What emerges from this is that although in 1961 the sub-region had an industrial structure that was favourable for growth, then unless there was a very remarkable further favouring of the region within the detailed structure of separate industrial groups, the main element in the sub-region's overall performance has been the above average expansion of its industries. To some extent this is due to the TDA schemes, but one cannot explain Royston, Newmarket or Cambridge experience in that way. It raises the old question of whether people have followed jobs or jobs followed people: but this is a question that cannot be answered with any conviction by the data at our disposal. What is probably true is that it is not a very intelligent question in this context. At any one time, there have been vacant, and even new, jobs attracting migrants into the area.

Table 18.24 Calculation of growth component

		GB employment 1961 '000s	Sub-Regional growth rates '61–'71	Expected employment in Great Britain in 1971 '000s*
I	Agriculture, forestry, fishing	598.7	−34.4	392.7
II	Mining and quarrying	737.8	−57.7	312.1
III	Food, drink and tobacco	812.9	+17.8	957.6
IV	Chemicals and allied industries	533.7	+63.4	872.1
V	Metal manufacture	637.1	−62.2	240.8
VI	Engineering and electrical goods	2,133.1	+44.5	3,082.3
VII	Shipbuilding and marine engineering	252.7	+97.5	499.1
VIII	Vehicles	894.4	+22.9	1,099.2
IX	Metal goods not elsewhere specified	563.1	+85.2	1,042.9
X	Textiles	843.5	+8.5	915.2
XI	Leather, leather goods and fur	63.2	+123.4	141.2
XII	Clothing and footwear	573.1	−15.3	485.4
XIII	Bricks, pottery, glass cement etc.	347.0	+45.1	503.5
XIV	Timber, furniture etc.	290.1	+62.3	470.8
XV	Paper, printing and publishing	615.6	+61.7	995.4
XVI	Other manufacturing industries	307.7	+129.8	687.5
Manufacturing total orders II–XVI		9,604.8		12,305.1
XVII	Construction	1,510.9	−3.5	1,458.0
XVIII	Gas, electricity and water	382.1	+15.6	441.7
XIX	Transport and communication	1,657.3	−15.5	1,400.4
XX	Distributive trades	2,829.3	+10.6	3,129.2
XXI	Insurance banking and finance	560.0	+58.8	889.3
XXII	Professional and scientific services	2,059.7	+60.5	3,305.8
XXIII	Miscellaneous services	2,007.2	+9.2	2,191.9
XXIV	Public administration and defence	1,277.7	+12.6	1,438.7
Services total orders XVIII–XXIV				12,797.0
N.S.		2.2		
Grand total orders I–XXIV		22,490.0		26,952.8

* i.e. National employment in 1971 if the sub-regional growth rates are applied to the 1961 national employment levels.

Source: Department of Employment, E.R.II.

At the same time jobs have arisen in existing and new industries partly in the knowledge that labour of the right kind is available locally. At the level of an EEA, and especially in the smaller ones with simpler economic structures, the dichotomy between population-led growth and employment-led growth may be more realistic. In the case of Cambridge itself, the growth of jobs in the city has been possible largely because of population growth outside the city; and there is little doubt that if faster growth of the city's population were permitted several of its industries would grow at a rate that is not now possible.

The geographical distribution of jobs differs appreciably from that of population, mainly in that, with a few exceptions, the market towns are net importers of labour. The widely scattered population, with expanding villages that provide inadequate employment opportunities for their own residents, and, on the part of some, a desire to live in rural surroundings has resulted in a great deal of travelling from one administrative area to another. This is the case in most parts of the country but to some extent it has been magnified by Cambridgeshire's planning policy.

The Population Censuses of 1951, 1961 and 1966 are the best sources of data on journey to work. The last two are for this purpose based on a ten percent sample. Comparisons between years are made difficult by boundary changes, and in any case the data are available for local authority areas that do not always approximate to EEA areas. On the other hand, we have been able to obtain for 1966 special tabulations on a parish level for several identified work places. In this report we rely mainly on a comparison of the data for 1951 and for 1966. Much of the analysis is based on an examination of a set of detailed maps, not reproduced here, which we constructed from the material at our disposal.

One of the most interesting questions on which the journey to work tabulations shed light is the question of whether our sub-region, defined as a set of eight employment exchange areas, makes sense as a labour market. It must be said once more that the definition in terms of employment exchange areas is our own, and intended more to limit and to disaggregate our area of detailed study than to assert the identity of some economically, socially or geographically distinct sub-region. The East Anglia Economic Planning Council found it useful to think of East Anglia as four city-regions, of which one was based on Cambridge. Subsequently they divided East Anglia into four sub-divisions for statistical purposes, producing the usual and inevitable compromise between economic realities, statistical convenience, and political palatability. The south-west sub-division includes parts of Cambridgeshire, Huntingdonshire and West Suffolk. The nearest approximation to it can be obtained by an aggregation of employment exchange areas consisting of the whole or major parts of the EEAs of Cambridge, St. Neots, Huntingdon, Ely, Newmarket, Haverhill. Like the area surveyed by the East Anglia Consultative Committee in its "East Anglia Regional Survey", this excludes both Royston and Saffron Walden. These two towns are in the South East Economic Planning Region, and the former is part of the Outer Metropolitan Area.

Figures 18.4 – 18.7 summarise data about the journey to work in 1951 and 1966. The detail for 1951 shows us that all of the market towns except Huntingdon contributed at least 611 workers to Cambridge, and Ely and Newmarket had some flow in reverse. On the other hand, St. Neots sent about 40 workers to Bedford compared with about 32 to Cambridge; Saffron Walden sent 46 to London, and Royston sent 169 to Letchworth. From Cambridge itself 203 workers went daily to London.

By 1966 the picture had complicated. Two-way flows were more common. There was, too, a marked increase in the proportion of people in St. Neots, Royston, Saffron Walden, Haverhill and Newmarket who worked outside the sub-region, mainly to the south. In fact, the overall picture is one of a journey south. The market towns in the north of the sub-region send important proportions of their workers south to Cambridge, while Cambridge itself tends to have southward bound commuters, as do the market towns in the southern half of the sub-region.

In Table 18.25 we see that for each of the market towns, residents of the associated EEA took up at least 87% of the jobs available in the town. The highest percentage was for Ely. Before looking at this matter in more detail we may glance at Figures 18.6 and 18.7. The first, based on 1951 data, indicates the extent to which residents of various rural districts were dependent on Cambridge as a place of work.

Table 18.25 Proportion of workers in employment centres living in the EEA, by EEA

EEA	Employment centre(s)	Total employment in each centre			% persons resident within EEA		
		M	F	Total	M	F	Total
Cambridge	Cambridge MB	34,500	20,980	55,480	85	90	87
Huntingdon	Huntingdon & G.MB + St. Ives MB	5,890	3,690	9,580	88	95	91
St. Neots	St. Neots UD	2,760	1,540	4,300	88	90	89
Royston	Royston UD	2,110	1,240	3,350	82	94	87
Saffron Walden	Saffron Walden MB	2,680	1,490	3,770	85	90	87
Haverhill	Haverhill UD	3,320	1,730	5,050	84	93	87
Newmarket	Newmarket UD	4,730	2,820	7,550	83	96	88
Ely	Ely UD	3,400	1,750	5,150	94	96	95

Source: 1966 Census of Population

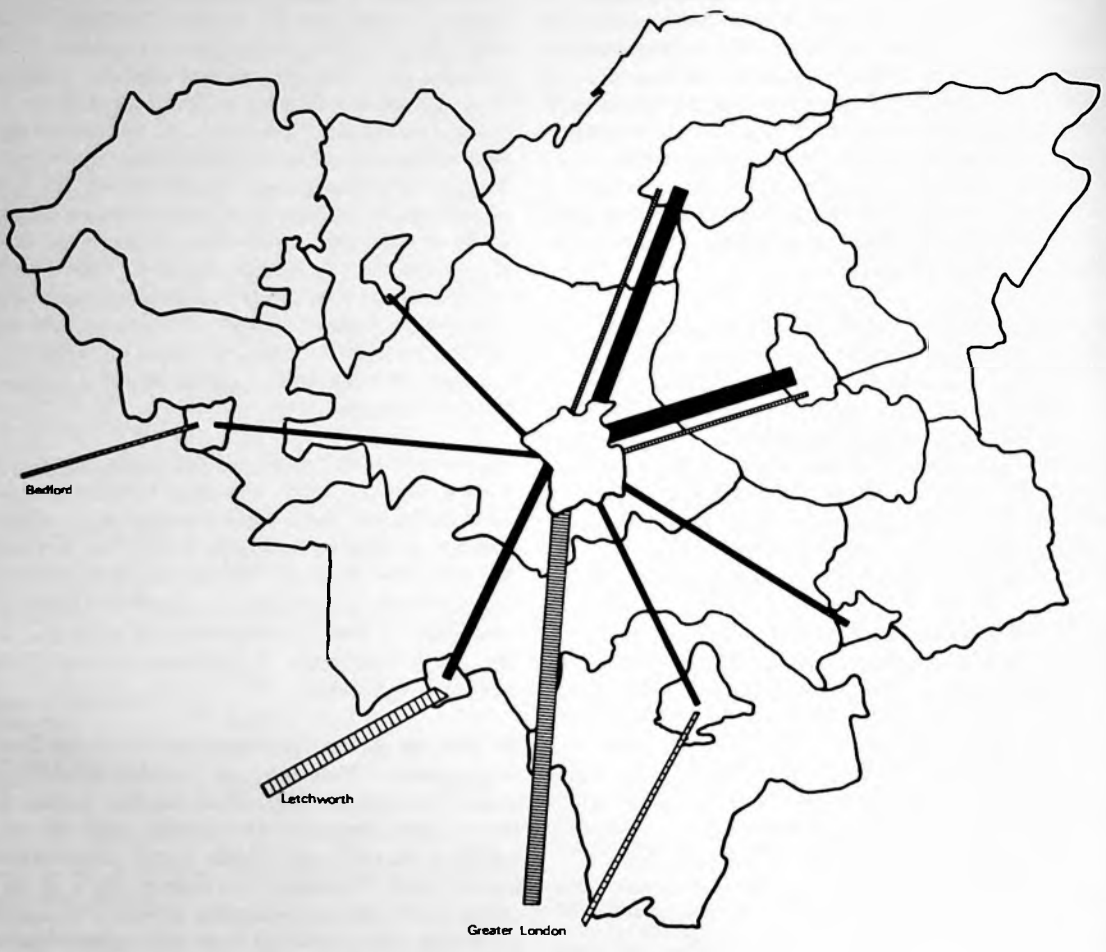


Figure 18.4 Journey to work 1951

Key

From the market towns to Cambridge

From the market towns to major urban employment centres outside the sub-region

From Cambridge to the market towns and major urban employment centres outside the sub-region

persons
500 300 100

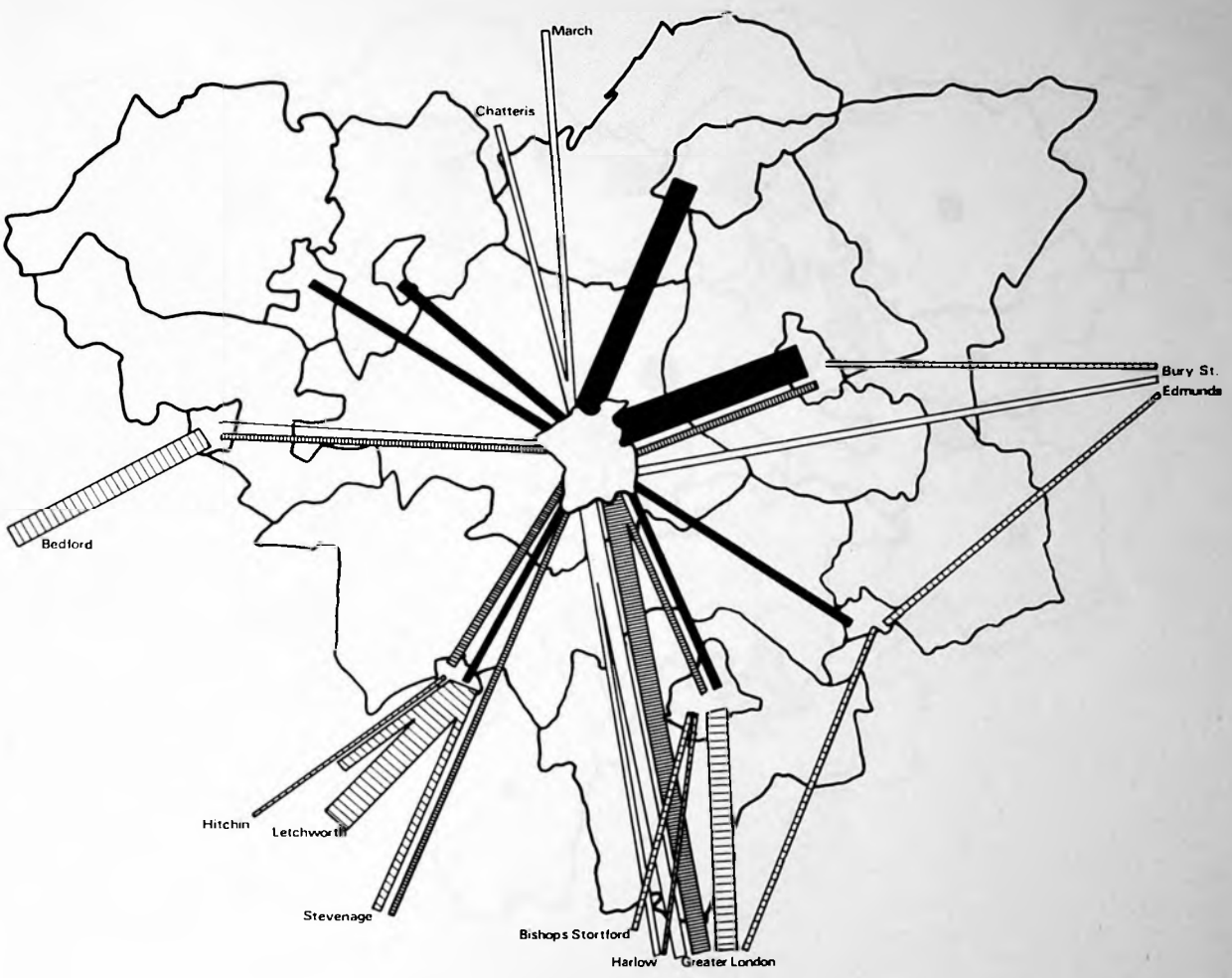


Figure 18.5 Journey to work 1966

Key

From the market towns to Cambridge

From the market towns to major urban employment centres outside the sub-region

From Cambridge to the market towns and major urban employment centres outside the sub-region

From major urban centres outside the sub-region to Cambridge

persons
500 300 100

Figure 18.6 Journey to work to the market towns, 1951

Key

Major urban centre

Percentage of economically active population resident in local authority and travelling to work in market towns:

15% dependency and over

10% dependency and under 15%

5% dependency and under 10%

Percentage of economically active population resident in local authority and travelling to work in Cambridge:

15% dependency and over

10% dependency and under 15%

5% dependency and under 10%

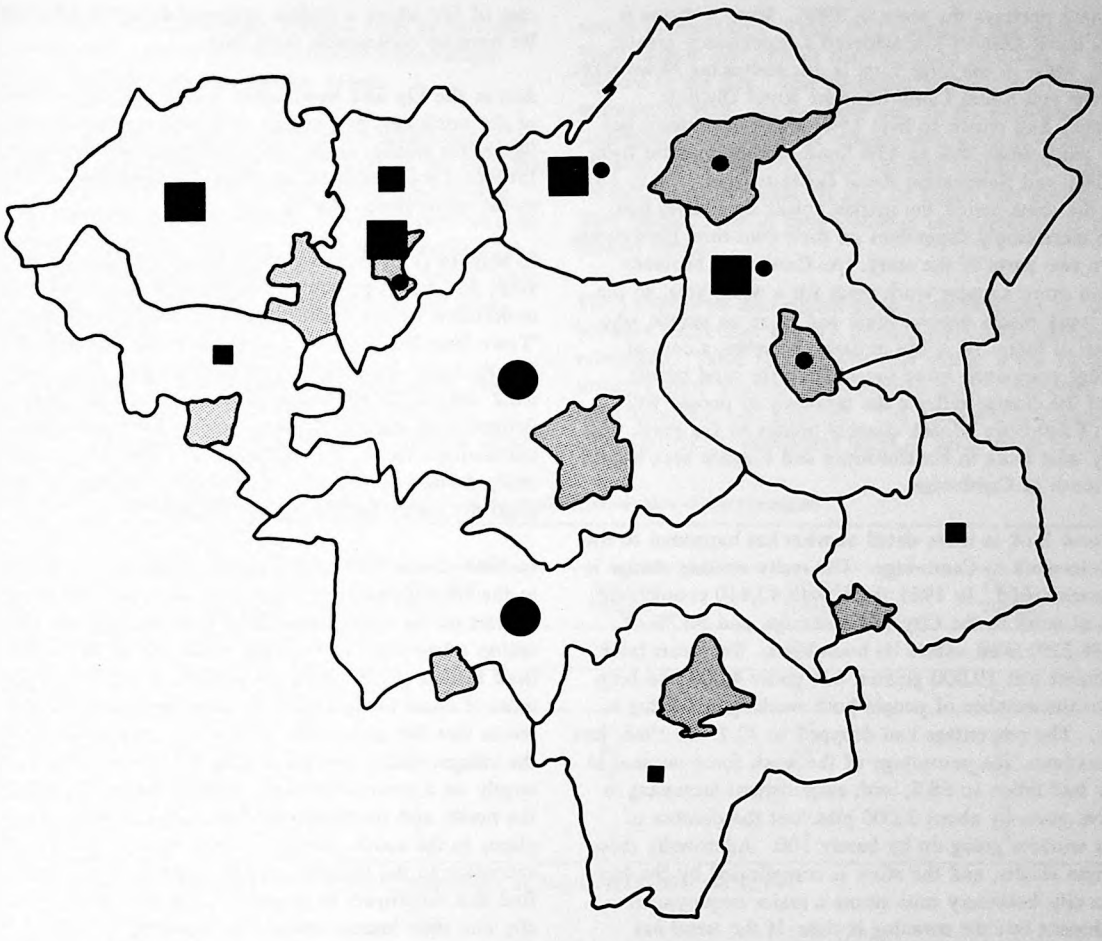


Figure 18.7 Journey to work to the market towns, 1966

Key

Major urban centre

Percentage of economically active population resident in local authority and travelling to work in market towns:

15% dependency and over

10% dependency and under 15%

5% dependency and under 10%

Percentage of economically active population resident in local authority and travelling to work in Cambridge:

15% dependency and over

10% dependency and under 15%

5% dependency and under 10%

The second portrays the story in 1966. What it shows is that Ely Rural District had achieved a dependency greater than 5%, while in the large rural sector embracing Newmarket, Chesterton and South Cambridgeshire Rural Districts, dependency had grown to over 15%, with Chesterton's percentage rising from 26% to 43% South Cambridgeshire from 9% to 16% and Newmarket Rural Districts from 13% to 18%. During the same period the market towns themselves have become increasingly dependent on their own rural hinterlands. Here are two parts of the story. As Cambridge becomes more and more a major work place for a wider area, so the smaller work places depend more and more on people who live close to them. It is not entirely, however, a case of Cambridge competing more successfully for rural labour. Much of the change reflects the tendency of people with work in Cambridge to seek cheaper houses to the north, just as many who work in Hertfordshire and London seek houses to the south of Cambridge.

Let us now look in more detail at what has happened to the journey to work in Cambridge. The really striking change is easily summarised. In 1951 there were 42,410 enumerated persons at work in the City of Cambridge, and 80.7% of them (34,229) lived within its boundaries. Ten years later, employment was 10,000 greater, but under 4,000 had been added to the number of people both working and living in the city. The percentage had dropped to 72.7. In 1966, just five years later, the percentage of the work force resident in the city had fallen to 68.8, with employment increasing in these five years by about 3,000 jobs, but the number of resident workers going up by barely 100. Admittedly these are sample results, and the story is complicated by the fact that the city boundary runs across a major employment establishment but the meaning is clear. If the trend has continued, the city of Cambridge by now depends on people living outside it to fill well over a third, perhaps, indeed, two-fifths, of its jobs; and these jobs are growing faster than the City's population. The percentage of its labour force coming from each of the six areas listed in Table 18.26, and from the amalgam of other areas, has grown steadily, except in the case of Ely where a decline occurred between 1961 and 1965. We have no comparable later data.

Just as the Ely and Newmarket figures suggest a dominance of the north-east as a source of labour for Cambridge so do figures for smaller areas. Burwell, Fordham, Soham and Littleport are prominent amongst the suppliers of manpower to the sub-regional capital.

In Map 14 (Part One) we show the boundaries of four areas that are of interest partly because of an earlier analysis undertaken by the Cambridgeshire County Council. The 'Town Map No.1' area is a convenient geometrical area just slightly larger than the City of Cambridge. The 'Town Map No.2' area is, except in the south east, another geometrically defined area, roughly 2 miles outside the former area, and containing a first ring of villages. Beyond this are less precisely defined second and third rings of villages. Further still from the centre are the 'Outer Villages'.

In 1966 almost 92% of the people working in Cambridge lived in the employment exchange area. In other words almost a quarter of the work force (23%) lived outside the city but within a few miles of it, while about 8% of the employees lived further afield. A closer analysis of the data shows that most of those living within the employment exchange area did in fact live quite close to the city, and particularly in the villages within the Town Map No.2 area. The pattern was largely on a north-south axis, with Histon and Impington to the north, and the Shelfords, Sawston and neighbouring places to the south. When we look at journey to work according to the industry in which the worker is employed we find that employees in manufacturing who lived outside the city had their homes more or less according to the pattern just described but there is an emphasis on the north-east. Those in service employment tended to live to the west.

While about 12% of the employees lived in the Town Map No.2 villages, a further 7% lived in the Second Ring Villages, such as Comberton, Tottenham, Sawston and Hottisham.

Table 18.26 Areas of residence of the working population of Cambridge MB

Place of residence	1951		1961		1966		% Change		
	Number	% of total work-force	Number	% of total work-force	Number	% of total work-force	1951–61	1961–66	1951–66
Cambridge	34,229	80.7	38,050	72.7	38,170	68.8	11.2	0.3	11.5
Chesterton RD	4,425	10.4	7,610	14.5	9,110	16.4	72.0	19.7	105.9
Newmarket RD	847	2.0	1,380	2.6	1,860	3.4	62.9	34.8	119.6
S. Cambs. RD	1,032	2.4	1,920	3.7	2,230	4.0	86.0	16.1	116.1
Ely RD	120	0.3	430	0.8	540	1.0	258.3	25.6	350.0
Newmarket UD	206	0.5	210	0.4	420	0.8	1.9	100.0	103.9
Ely UD	154	0.4	320	0.6	280	0.5	107.8	-12.5	81.8
Rest of Sub-Region	1,397	3.3	2,410	4.6	2,870	5.1	72.5	19.1	105.4
Outside (total)	8,181	19.3	14,280	27.3	17,310	31.2	74.6	21.2	111.6
Total employment	42,410	100	52,330	100	55,480	100	23.4	6.0	30.8

Source: Census of Population

About 4% lived in the Third Ring Villages, such as Duxford, Linton and Burwell, and about 6% travelled from villages even further out, and from the market towns.

This pattern of work and residence to some extent depends on employment opportunities elsewhere, both in the EEA and outside it. Within the EEA are several minor employment centres. In declining order the more important ones were, in 1966, Histon, Impington, Sawston, Shelford, Stapleford, Duxford, Waterbeach and Milton. Most of these are in Town Map No.2 area. There were also others, outside the EEA, and the market towns.

A survey undertaken by the County of Cambridge in 1964 produced results that are broadly compatible with this analysis of the 1966 Sample Census data, but differ in detail and in presentation. Table 18.27 presents the main results. They suggest that 87% of the employed residents of Cambridge worked in the city. This compares with a 1966 Census estimate of 90%. As we move out, so the percentage of the employed residents of the villages who work in Cambridge declines, while the proportion working locally or in the market towns increases. It may be noted that the Second Ring villages seem to have a strange independence of the market towns.

The Census data also enable us to examine flows of workers between Cambridge and the other employment centres in the sub-region. Table 18.28 shows that almost every village supplied more workers to Cambridge than it absorbed. The main exception was Duxford. The villages near Cambridge were particularly dependent upon it, while those further out

Table 18.27 Area of residence and place of work of a sample of the working population of the sub-region

	Area of residence				
	City of Cambridge	Town Map No.2	2nd Ring Villages	3rd Ring Villages	Outer Villages
Total workers in sample	581	521	448	485	507
Place of work:	%	%	%	%	%
Cambridge	87	49	30	20	4
Own Village	–	31	44	44	51
Rest of County	6	8	15	19	12
Mkt. Towns*	1	3	–	7	17
Elsewhere				4	10
No fixed Place	6	9	8	6	6

* Ely, Newmarket, Haverhill, Saffron Walden, Royston, Biggleswade, St. Neots, Huntingdon and St. Ives

Source: County of Cambridge: Home Interview Survey, 1964

Table 18.28 Commuters to and from the villages of the sub-region, 1966

	Commuting out to		Commuting in from		Other commuters in	Local work force	Total emp.
	Cambridge	Market town	Cambridge	Market town			
Histon/Impington	1,050	–	480	–	710	720	1,910
Hauxton	120	–	80	–	230	60	370
Milton	500	–	280	–	260	160	700
Shelford/Stapleford	1,330	–	220	–	120	570	910
Waterbeach	210	–	50	–	280	490	820
Barrington	80		60	10 (Royston)	280	140	490
Sawston	490	20 (S. Walden)	210	–	560	780	1,770
Duxford	60	–	130	80 (S. Walden)	280	370	860
Abington	150	–	50		220	240	460
Babraham	10		70	10	200	110	310
Melbourn/Meldreth	160	270 (Royston)	50 (Royston)	150	280	610	1,090
Fordham	140	180 (Newmarket)	–	60 (Newmarket)	330 (Incl. Soham 180)	280	670
Burwell	350	160 (Newmarket)	10	170 (Newmarket)	250 (incl. Soham 60)	610	1,040
Soham	270	180 Newmarket 130 Ely	–	10 Newmarket 20 Ely	100	1,060	1,190
Linton	200	40 S. Walden	–	–	130	440	570
Littleport	210	440 Ely	–	30 Ely	230	1,220	1,450

Source: Census of Population

tended towards the nearest market towns, both as sources of labour and as places of work. This generalisation should not, however, obscure the fact that even from more remote villages there were sizeable flows to Cambridge, as can be seen in the table.

A convenient summary of the industrial pattern of geographical mobility is presented in Table 18.29 derived from the Cambridgeshire County Council's survey. The further away you go from Cambridge the more important agriculture became as a source of employment, for the local residents; and most of them worked locally, especially in the less remote places.

Independently of distance, about 7% of village population were employed in local manufacturing industry, and about three times as much in manufacturing work elsewhere. The influence of Cambridge declined with distance.

In the Second Ring villages, and further out, local service employment absorbed about 22% of the workers; but there were always even more working in service industries outside their own village. Total employment in these industries declined with distance from Cambridge.

When we look at the balance of commuting into and out of Cambridge, and at the changes that have taken place in this, we find that in 1951 some 34,000 residents of Cambridge worked in the city. This accounted for 90.89% of the total employed residents. Ten years later, the number was 4,000 higher, and represented 91.55% of the employed population. In 1966, the number was much the same but represented only 90.2% of the economically active residents. Another way of putting it is that in 1951 almost 3,400 city residents worked outside the city; that in 1961 just over 3,550 did so; while in 1966 about 4,100 journeyed out.

These figures have to be compared with an influx of about 8,000 in 1951 and 17,000 in 1966. A closer examination of the Census data shows that over these fifteen years every identified outside source of supply for Cambridge's labour, except Royston Urban District, increased its share of the total, which was itself growing.

The Cambridge Sub-Region, and especially Cambridge itself, has a reputation for a low level of unemployment except in the Ely area. To some extent this has already been discussed. Figure 18.8 shows the course of unemployment in January and July of each year since 1951 in the various exchange areas, and in Figure 18.9 the more recent seasonal pattern is recorded. When we look at some detail, summarised in Table 18.30, we see that in recent years the highest rates of unemployment have been in the construction industries, but that even here they have been low in national terms. The contrast between unemployment rates in both agriculture and manufacturing in the Ely area with those in the same sectors in the Cambridge area is particularly marked. It may also be observed that in most parts of the sub-region unemployment in manufacturing industry was particularly low. The age and duration pattern of unemployment for the sub-region is much the same as for the country as a whole.

Table 18.29 Place of work of different employment groups within the sample of the working population of the sub-region

	Area of residence				
	City of Cambridge	Town Map No.2	2nd Ring Villages	3rd Ring Villages	Outer Villages
Total workers in sample	581	521	448	485	507
Agriculture					
Own village	–	6%	15%	14%	22%
Rest of county	–	–	1%	2%	3%
Elsewhere or no fixed place	–	–	–	–	2%
TOTAL	–	6%	16%	16%	27%
Manufacturing					
Cambridge	18%	12%	7%	6%	2%
Own village	–	7%	7%	7%	7%
Rest of county	3%	4%	6%	9%	4%
Elsewhere or no fixed place	–	2%	2%	6%	10%
TOTAL	21%	25%	22%	28%	23%
Services					
Cambridge	69%	37%	23%	14%	2%
Own village	–	18%	22%	23%	22%
Rest of county	3%	4%	8%	8%	5%
Elsewhere or no fixed place	7%	10%	9%	11%	21%
TOTAL	79%	69%	62%	56%	50%

Source: County of Cambridge: Home Interview Survey, 1964

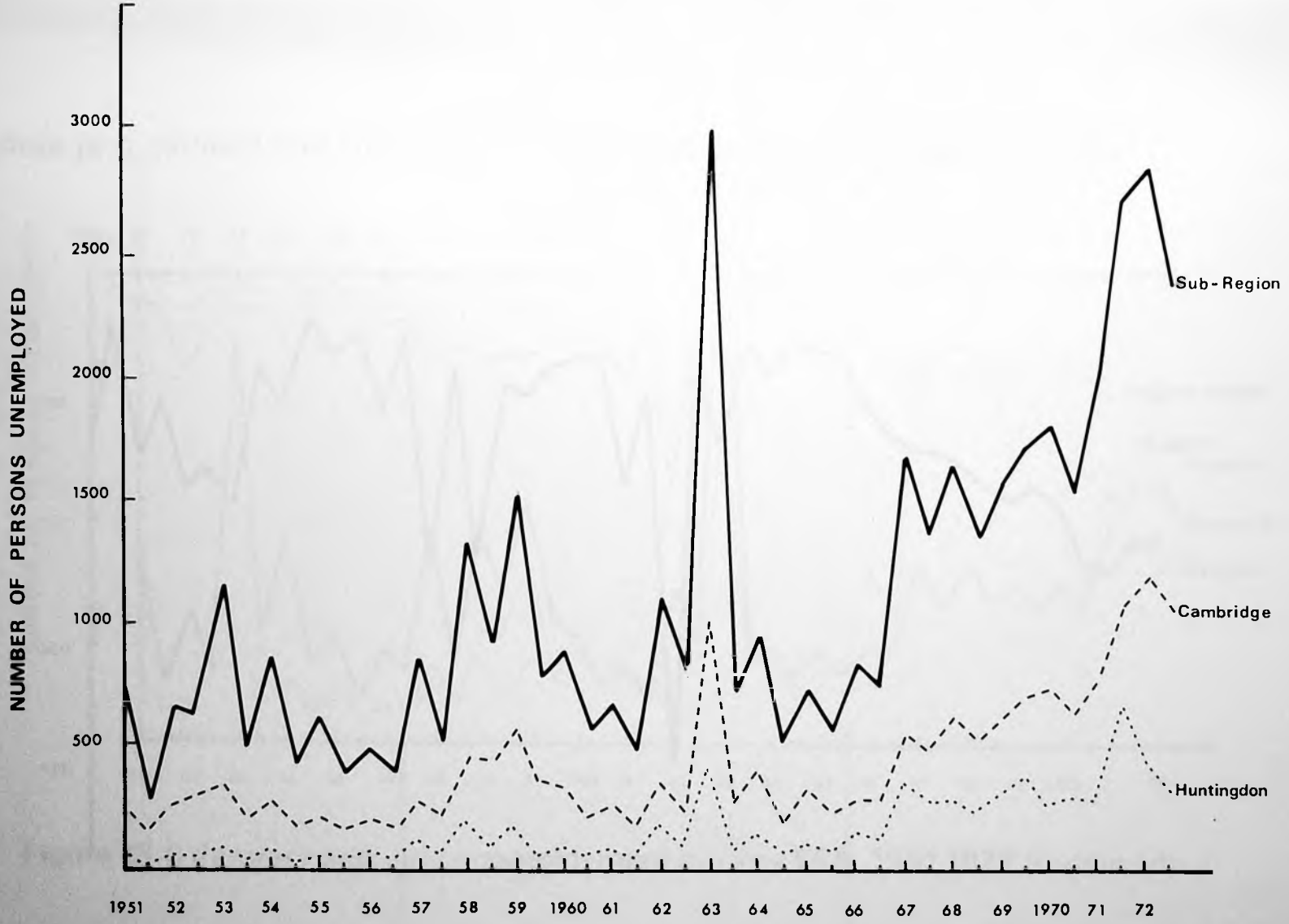


Figure 18.8 January and July unemployment data by EEA, 1951-1972

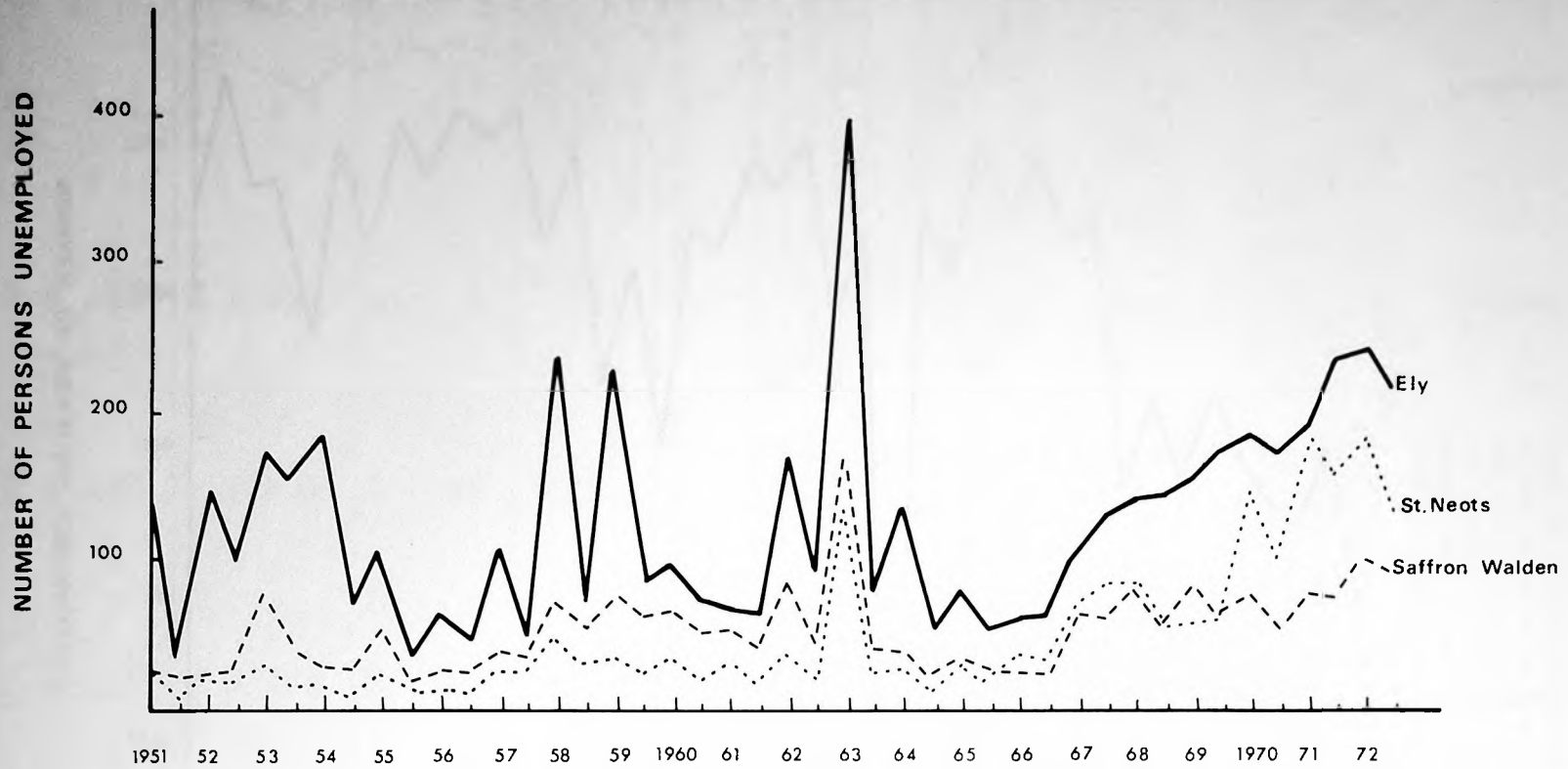


Figure 18.8 January and July unemployment data by EEA, 1951-1972 (continued)

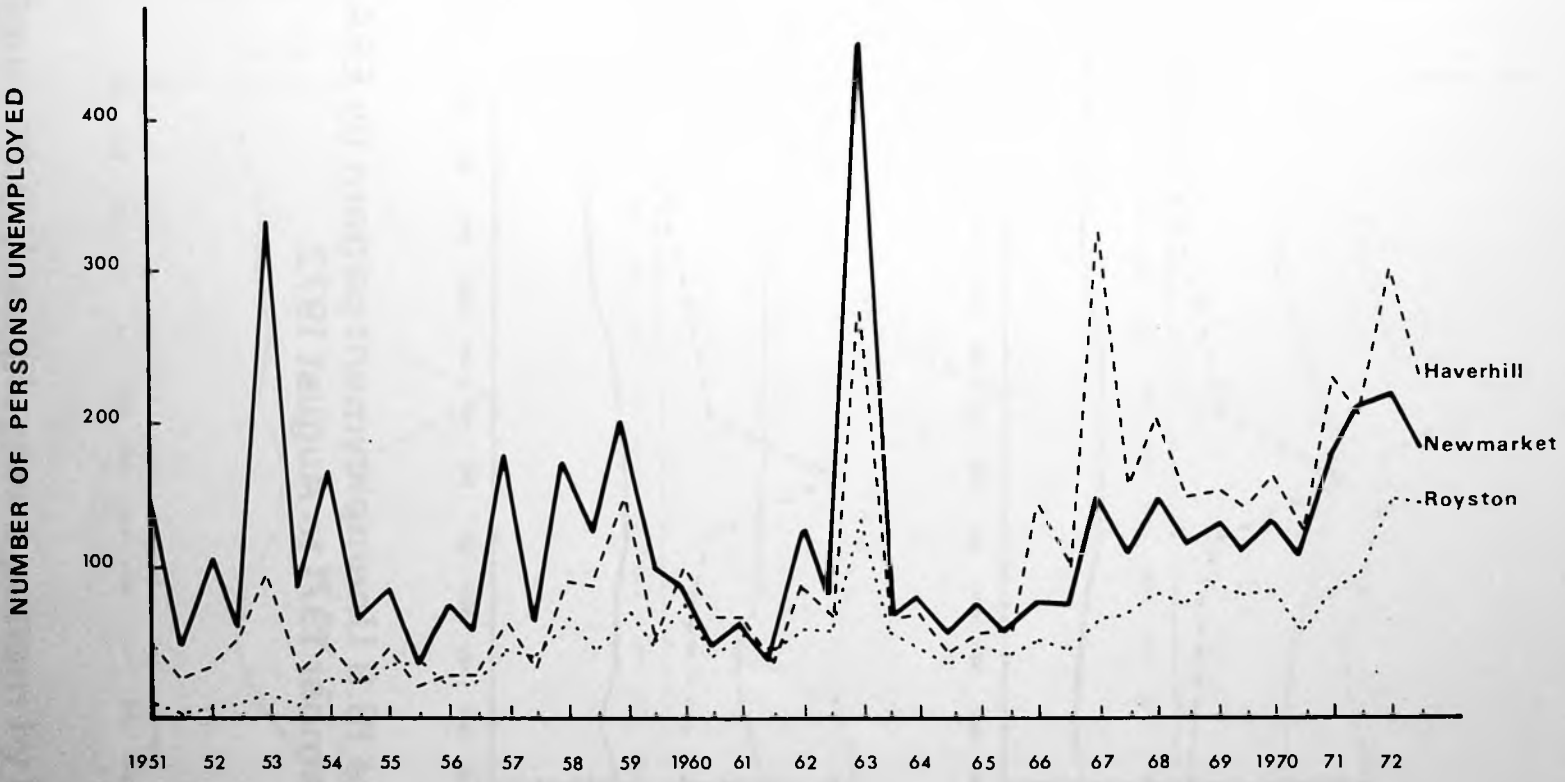


Figure 18.8 January and July unemployment data by EEA, 1951-1972 (continued)

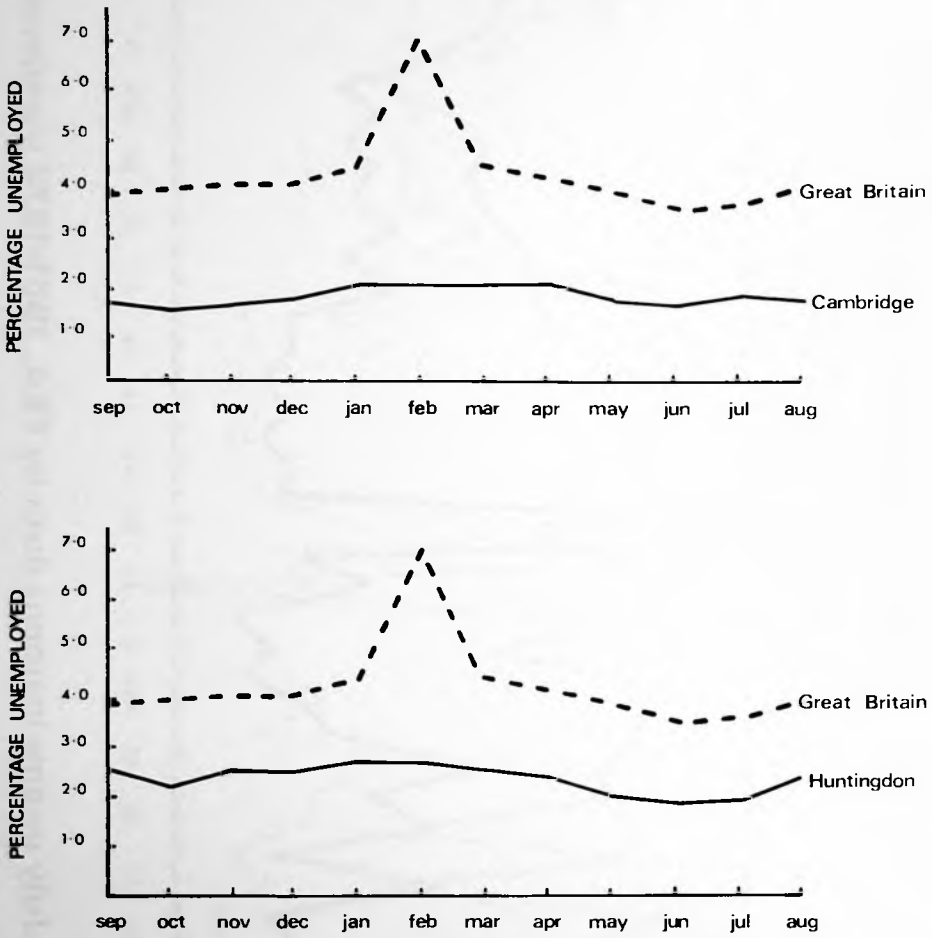
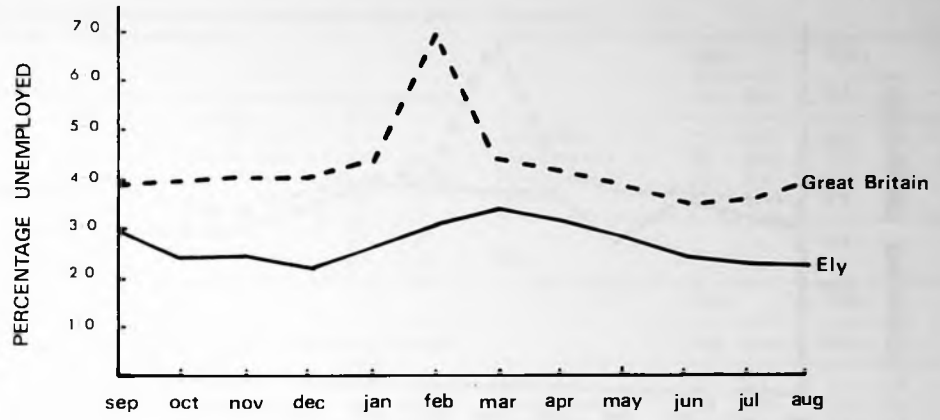
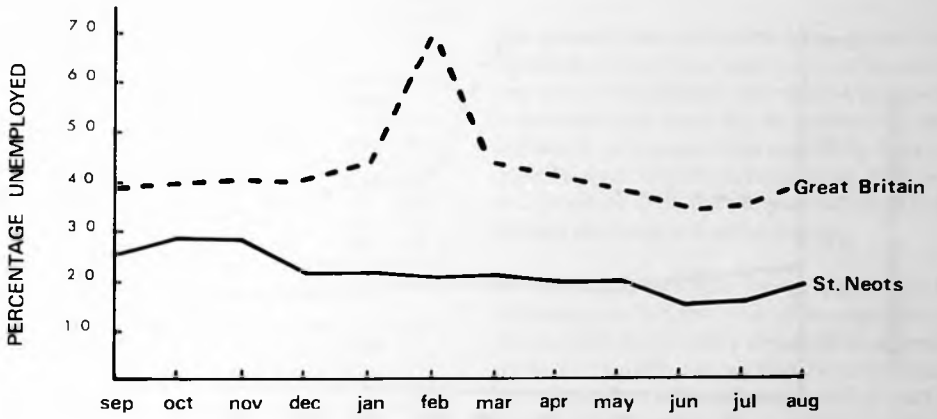


Figure 18.9 Unemployment pattern by EEA, September 1971 to August 1972





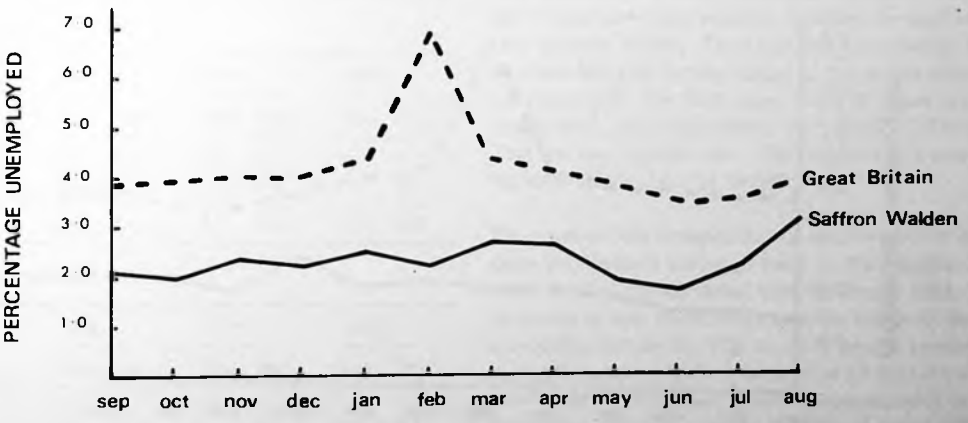


Figure 18.9 Unemployment pattern by EEA, September 1971 to August 1972 (continued)

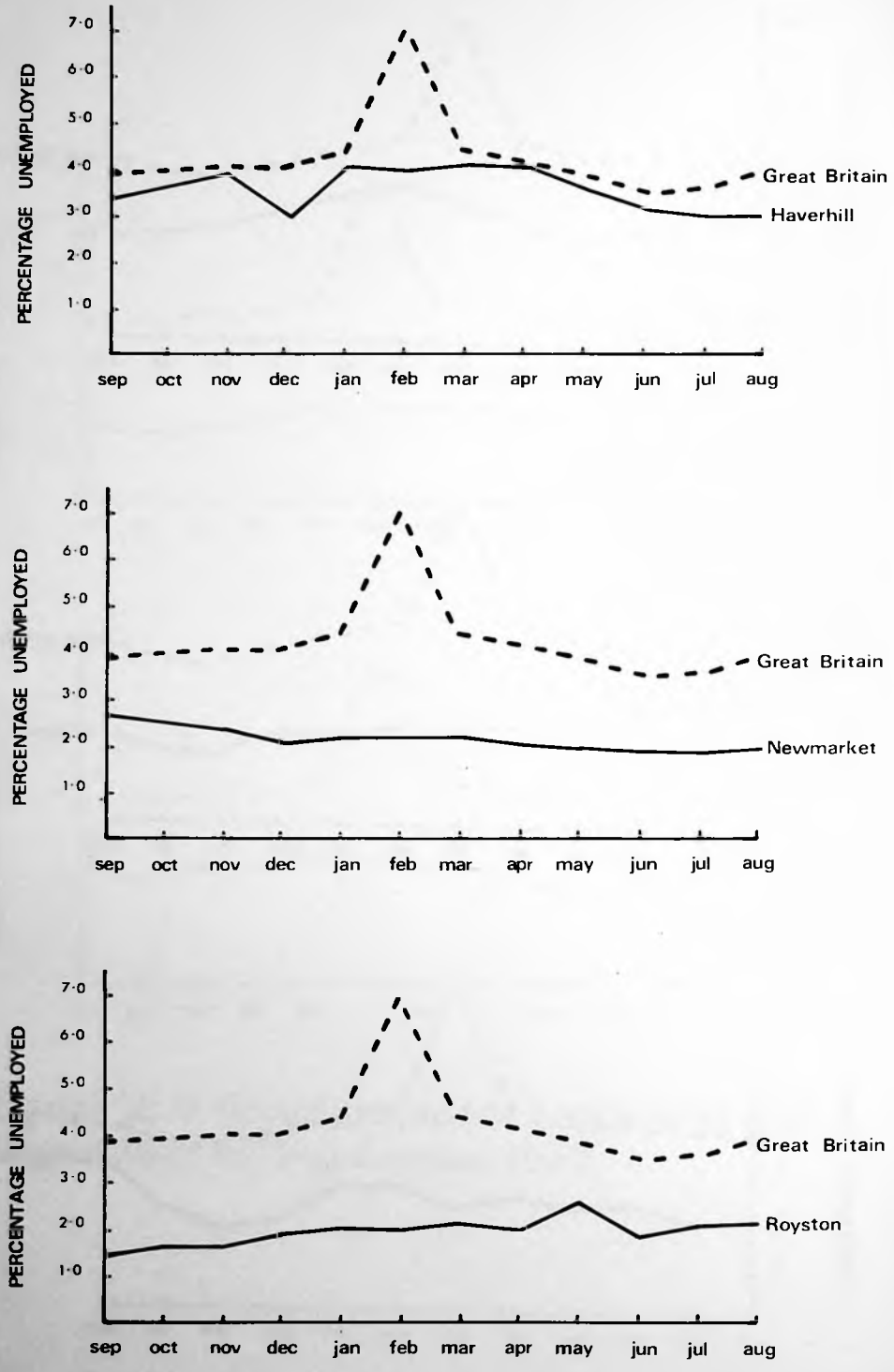


Figure 18.9 Unemployment pattern by EEA, September 1971 to August 1972 (continued)

Table 18.30 Unemployment rates for each industry sector within each employment exchange area of the sub-region

Camb.idge

	1968		1969		1970	
	June	Dec.	June	Dec.	June	Dec.
Agriculture	0.8	0.7	1.3	0.8	0.8	1.2
Manufacturing	0.4	0.5	0.4	0.5	0.5	0.7
Construction	1.2	1.7	1.8	1.7	1.3	1.5
Services	0.7	0.7	0.9	0.8	0.7	0.9

Huntingdon

	1968		1969		1970	
	June	Dec.	June	Dec.	June	Dec.
Agriculture	1.2	1.0	1.2	1.2	0.9	0.8
Manufacturing	1.3	1.5	1.3	1.1	1.3	1.1
Construction	2.2	1.9	1.4	3.2	1.2	3.0
Services	1.0	1.3	1.2	1.2	1.0	1.3

St. Neots

	1968		1969		1970	
	June	Dec.	June	Dec.	June	Dec.
Agriculture	0.8	0.2	0.3	0.9	1.3	0.5
Manufacturing	1.2	0.4	0.4	0.6	0.8	0.9
Construction	1.8	0.9	1.5	3.3	2.7	2.2
Services	1.1	0.9	1.3	2.5	1.6	1.6

Royston

	1968		1969		1970	
	June	Dec.	June	Dec.	June	Dec.
Agriculture	0.6	0.7	0.7	0.4	0.5	0.8
Manufacturing	0.9	0.9	1.3	0.8	1.0	0.5
Construction	2.4	2.1	2.4	2.6	1.3	1.8
Services	1.2	1.7	1.4	1.0	1.4	1.4

Saffron Walden

	1968		1969		1970	
	June	Dec.	June	Dec.	June	Dec.
Agriculture	0.6	0.5	0.3	0.9	0.7	1.2
Manufacturing	0.6	0.3	0.4	0.6	0.4	0.5
Construction	0.2	1.1	1.1	1.4	1.1	2.7
Services	1.1	0.9	1.0	1.8	1.3	2.0

Haverhill

	1968		1969		1970	
	June	Dec.	June	Dec.	June	Dec.
Agriculture	0.9	0.8	0.7	1.0	1.1	2.0
Manufacturing	1.0	0.9	1.5	0.8	0.9	0.9
Construction	3.8	6.4	5.8	6.2	2.9	5.9
Services	3.0	3.0	2.3	2.4	1.8	2.7

Newmarket

	1968		1969		1970	
	June	Dec.	June	Dec.	June	Dec.
Agriculture	0.8	0.7	0.9	0.4	0.3	1.0
Manufacturing	0.9	0.6	0.4	0.6	0.5	0.8
Construction	1.6	3.4	1.6	2.5	1.5	2.2
Services	1.3	1.0	1.0	1.4	1.2	1.6

Ely

	1968		1969		1970	
	June	Dec.	June	Dec.	June	Dec.
Agriculture	2.9	1.4	2.4	1.9	2.5	1.5
Manufacturing	1.8	1.0	3.5	3.5	3.9	2.0
Constuction	5.2	2.6	3.8	2.1	3.8	2.3
Services	1.3	1.4	1.7	2.0	1.9	1.2

Source: Department of Employment

One question that needs to be answered is to what extent Cambridge differs from other towns in its employment structure and experience, and whether its low level of unemployment can reasonably be attributed to any such difference. An academically convincing answer to this question would require more resources than we have been able to devote to it, but our preliminary analysis has brought out some interesting pointers.

We selected thirteen other towns, with certain similarities to Cambridge, in that they were of a comparable size, or of historic interest, or with a university as an important employer. In each case we considered statistics relating to the employment exchange area, which in some cases was very closely centred on the town, but in other cases was probably less closely identified with the extent of its labour market.* When the 1971 Population Census data, including that on journey to work, becomes available it would be a useful and interesting exercise to refine the analysis to take account of this. The employment exchange areas will be identified here by the names of the towns with which we are concerned. The Bath area, which in future we will call simply Bath, had employment in 1970 of 37,000 persons. This was our smallest area. The largest was Norwich, with 98,000. Cambridge had 69,000.

We examined the composition of employment in each of these employment exchange areas, in East Anglia, and in Great Britain. It was noted that the Exeter EEA, where employment is only about three quarters the level that it is in Cambridge, has almost 90% as many people employed in service industries. Indeed, in this list of thirteen towns, four have a higher percentage of service employment than Cambridge. They are Exeter (71.0%), Reading (65.6%), Chester (64.5%) and Bath (74.0%). Two of these – Exeter and Chester – have about the same percentage in agriculture

* The towns were Bath, Bedford, Chester, Exeter(†), Gloucester, Ipswich(†), Lincoln, Luton(†), Norwich(†), Oxford(†), Peterborough, Reading(†), and York. Those marked † in this list are the ones in which the travel-to-work area deviates most from the E.E.A.

as does Cambridge. Oxford has almost the same fraction of its workers in the service industries, but has a substantially larger attachment than Cambridge to manufacturing industry.

We also looked at the major component of manufacturing employment in each area. In all except York, it is either Engineering and Electrical Goods, or Vehicles. In Bath, Bedford, Gloucester and Ipswich, employment in the former category is dominant and accounts for roughly the same fraction of total employment as in Cambridge – about 12%. Oxford has 70% of its manufacturing employment in one industry – Vehicles, compared with Cambridge's reliance on one industry for 44% of its employment in manufacturing.

Table 18.31 looks at the rate of growth of employment in engineering and electrical goods between 1961 and 1970. In some of our towns it declined and in several it grew very much faster than in Cambridge, even though in Cambridge it expanded at three times the national rate. For example in Reading and Gloucester, the rate of growth was about nine. times the national rate. In most cases the industry that dominated the manufacturing sector in 1970 was already doing so in 1961.

Table 18.31 also gives data for the services sector. In Cambridge and all but two of the thirteen other towns, the largest single element in service employment was that called 'Professional and Scientific Services'. In no town did this loom so large as a fraction of total service employment as in Cambridge. The nearest competitor was Oxford, with 40% of its service jobs in this category, compared with Cambridge's 45%. We must also comment on Exeter. Here the percentage was almost 37% making it third in this respect, but because service employment is so very important in Exeter, it came second in another comparison. Cambridge again was first, with 27.4% of its 1970 total employment arising out of professional and scientific services. Exeter was second with 26.0% and Oxford third was 23.5%.

Thus, whereas Cambridge does not stand out as particularly unusual in relation to its manufacturing industry, so far as we can tell from these statistics, it does emerge as being particularly dependent on Professional and Scientific Services. Moreover, this was also true in 1961, when for most places it was the Distributive Trades that were dominant. In several areas employment in Professional and Scientific Services has grown faster than in Cambridge, which barely exceeded the national rate: but they did not have the good start that Cambridge had, and they are still behind.

Table 18.32 shows another peculiarity of Cambridge's employment. We have already seen the pre-eminent importance of Professional and Scientific Services. Within this group, Cambridge had a higher percentage in educational services than did any other of our towns. Oxford, again, was second, with Gloucester beating Exeter to third place. In Bedford there was a very high component in Research and Development. In fact, whereas in Cambridge these activities employed 1,363 out of a total work force of 69,000, in Bedford they employed 2,779 out of a work force of 55,000. If we take education and research together, the percentage of professional and scientific service employment coming into one or the other of these groups was 73.1 for Cambridge, 69.3 for Bedford, and 64.3 for Oxford. In none other of our fourteen towns did it reach 60%.

It is often argued that an area that leans heavily on one industry suffers from a reduction in the range of job opportunities and tends to be unstable, in that its economic stability depends so much on the fortunes of a single industry of form. There is some truth in this. It would, however, be wrong to confuse the broadly defined and adaptable 'Engineering and Electrical Goods Industry' with something as narrow as coal mining or cotton spinning. Within the engineering industry there are undoubtedly many sectors whose continued expansion or prosperity are doubtful. On the other hand, provided that the firms within that

Table 18.31 Growth in the engineering and electrical goods industry and the professional and scientific service industry 1961–70 Cambridge, the 'Comparison towns', Great Britain

EEA	Engineering and Electrical Goods				Professional and scientific services			
	Employment		Change		Employment		Change	
	1961	1970	No.	%	1961	1970	No.	%
Cambridge	7,048	8,531	1,483	21.0	13,735	18,993	5,258	38.3
Bath	3,938	4,844	906	23.0	5,968	8,191	2,223	37.2
Bedford	5,167	7,304	2,137	41.4	6,438	10,616	4,178	64.9
Chester	2,189	845	−1,344	−61.4	5,475	7,851	2,376	43.4
Exeter	1,195	1,598	403	33.7	7,245	13,702	6,457	89.1
Gloucester	4,188	6,775	2,587	61.8	6,037	10,347	4,310	71.4
Ipswich	7,046	8,057	1,011	14.3	6,365	8,459	2,094	32.9
Lincoln	10,474	9,683	−791	−7.6	5,193	7,416	2,223	42.8
Luton	16,193	−13,882	−2,311	−14.3	3,653	6,800	3,147	86.1
Norwich	5,431	7,754	2,323	42.8	8,723	14,826	6,103	70.0
Oxford	2.151	2,281	130	6.0	17,052	22,469	5,417	31.8
Peterborough	8,861	11,677	2,816	31.8	3,156	5,866	2,710	85.9
Reading	5,063	8,226	3,163	62.5	7,917	20,215	12,298	155.3
York	1,544	1,683	139	9.0	6,045	10,043	3,998	66.1
GB '000s	2,133.1	2,287.6	154.5	7.2	2,059.7	2,832.6	772.9	37.5

Source: Department of Employment, E.R.II

Table 18.32 Employment in the professional and scientific service industries 1970, Cambridge, the 'comparison towns', East Anglia, Great Britain

	Account-ancy services		Educational services		Legal services		Medical and dental services		Religious organisa-tions		Research and developt. services		Other prof. and scienc. services		Total prof. and scienc. services	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Cambridge	405	2.1	12,516	65.9	291	1.5	4,114	21.7	35	0.2	1,363	7.2	269	1.4	18,993	100.0
Bedford	212	2.0	4,577	43.1	255	2.4	2,580	24.3	12	0.1	2,779	26.2	201	1.9	10,616	100.0
Bath	154	1.9	4,168	50.9	301	3.7	3,113	38.0	51	0.6	–		404	4.9	8,191	100.0
Chester	208	2.6	3,339	42.5	334	4.2	3,654	46.5	122	1.6	1	0.0	193	2.5	7,851	99.9
Exeter	310	2.3	7,500	54.7	465	3.4	5,106	37.3	55	0.4	–		266	1.9	13,702	100.0
Gloucester	139	1.3	5,983	57.8	266	2.6	3,668	35.4	66	0.6	66	0.6	159	1.5	10,347	99.8
Ipswich	213	2.5	3,966	46.9	337	4.0	3,384	40.0	39	0.5	339	4.0	181	2.1	8,459	100.0
Lincoln	162	2.2	3,678	49.6	195	2.6	3,251	43.8	37	0.5	–		93	1.3	7,416	100.0
Luton	271	4.0	3,661	53.8	301	4.4	2,350	34.6	28	0.4	18	0.3	171	2.5	6,800	100.0
Norwich	597	4.0	7,574	51.1	562	3.8	5,182	35.0	49	0.3	326	2.2	536	3.6	14,826	100.0
Oxford	325	1.4	14,209	63.2	464	2.1	6,893	30.7	57	0.3	250	1.1	271	1.2	22,469	100.0
Peterborough	226	5.1	2,262	51.1	233	5.3	1,553	35.1	70	1.6	–		79	1.8	4,423	100.0
York	234	2.3	4,555	45.4	354	3.5	4,436	44.2	88	0.9	64	0.6	312	3.1	10,043	100.0
EA '000s	2.4	2.8	48.3	57.2	2.9	3.4	25.4	30.1	*		3.5	4.1	1.7	2.0	84.4	99.6
GB '000s	94.0	3.3	1,387.6	49.0	105.6	3.7	1,014.8	35.8	19.3	0.7	82.8	2.9	128.4	4.5	2,832.6	99.6

* Employment data not available.
Source: Department of Employment, E.R.II.

industry are on the alert for new markets, new materials, new techniques and new products, which they should be in their own interests, this is an industry whose representation in the local economy can be almost a hallmark of diversification and prospective stability. A similar point can be made about the Vehicles Industry, where the necessarily more limited range of possible outputs, is nevertheless compensated by the permanent determination of the human race to increase the movement of goods and people by mechanical means. What causes much more concern to an observer than the specialism of industries is the dependence on a very small number of firms. No firm can always avoid the risk of mistakes in the board room, undetected bad management, or trouble for personal reasons. There is every reason to believe that the firms that are so important in Cambridge suffer at present from none of these problems; but there is no guarantee that that will always be so. Diversification of employers can be as important as diversification of industries, just as, for a long time, one stable or growing employer can be as beneficial as one stable or growing industry. It is obvious that both Pye's and Marshall's (to name two of the biggest but differently specialised employers) have the interests of Cambridge as well as of themselves at heart; and they have helped, by their social awareness as well as by their business acumen, to maintain a stable employment in the area. But the time could come when one or the other of them would have to lay off many workers or perhaps even close its doors.

These melancholy murmurings are less likely to be made of employment in education, which accounts for almost a fifth of the total employment in the Cambridge employment exchange area, which makes it about three times as important as in the country as a whole. While this industry can sometimes expand very rapidly, it rarely loses labour except through retirements or resignations. In Cambridge there are many private educational employers, such as the language schools, for example, who are more vulnerable than the state and endowment financed institutions: but they are not a large proportion of the total, and they have some strength in their numbers. It is also true that, on the whole, the people whom they employ are likely to be more mobile than the average person.

Let us turn now to see whether, in the areas that we are considering, the rate of growth of employment reveals any dependence upon industrial structure. Table 18.33 records the changes in employment by main sector for the fourteen towns. Those that grew fastest were, in descending order, Reading, Peterborough, Bedford, Exeter, Cambridge, Norwich and York. None other grew by as much as 10%, although Lincoln and Bath topped nine percent. Chester and Luton declined.

In all of these towns, including those that declined, the biggest contributor to growth was the service sector. In some towns, indeed, it was the only sector that grew. This was true in Chester, Gloucester, Luton, Oxford and York, where the other sectors all saw declining employment. On the other hand, Peterborough grew almost as much in the manufacturing sector. Comparisons of percentage changes in total employment with those in separate sectors, or with the initial industrial composition, do not reveal any statistical associations at a simple level.

The deviation of the labour market areas from the EEA's becomes particularly important when we look at unemployment levels. A fuller analysis than we can now present shows very clearly how Cambridge is favoured.

In order really to answer the question with which we began we would need to look at the engineering industries in each town in much more detail, and probably even to take account of the numbers of firms and their ages. On the other hand, certain conclusions may be stated very tentatively. Some of them have already emerged.

Table 18.33 Change in employment 1961–70 Cambridge, the 'comparison towns', Great Britain

EEA	Agriculture		Manufacturing		Construction		Services		N.S.		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Cambridge	−679	−25.1	3,175	19.6	–	–	5,950	16.4	−47		8,399	13.8
Bath	−254	−30.2	611	7.3	204	7.6	1,637	7.4	920		3,119	9.2
Bedford	−538	−28.5	3,677	20.1	−1,477	−41.2	8,051	38.0	354		10,067	22.4
Chester	−392	−21.2	−4,152	−26.5	−442	−16.5	2,659	9.8	1,144		−1,183	−2.5
Exeter	−503	−23.0	716	9.4	659	16.3	6,914	22.7	473		8,259	18.6
Gloucester	−361	−26.6	−4,948	−19.0	−1,326	−28.5	5,955	23.8	3,831		3,151	5.5
Ipswich	−946	−37.3	746	3.1	351	7.6	2,338	7.9	969		3.457	5.7
Lincoln	−800	−24.5	1,288	6.6	949	27.5	3,305	14.6	111		4,853	9.9
Luton	−182	−35.4	−4,780	−9.0	−1,926	−40.7	4,860	24.9	1,723		−305	−0.4
Norwich	−1,214	−24.1	2,308	7.4	871	11.5	8,769	19.9	261		10,995	12.5
Oxford	−1,600	−57.1	−320	−1.0	−2,487	−37.7	10,828	23.6	538		6,959	7.9
Peterborough	−766	−23.2	5,979	24.6	531	17.1	6,459	34.1	55		12,258	24.7
Reading	301	22.5	3,915	19.6	187	3.7	19,530	49.6	53		23,986	36.5
York	−291	−21.5	−1,951	−8.2	−13	−0.3	5,970	18.2	4,037		7,752	12.3
GB '000s	−216.9	−36.2	−281.4	−2.9	−95.3	−6.3	+986.5	+9.2	45.2		439	1.9

Source: Department of Employment, E.R.II

Cambridge was not, in 1970, by any means the town with the highest proportion of its employment in service industries, but within that sector it had a higher fraction in professional and scientific services than did any other town examined by us, and within that sub-sector a higher percentage in education, which is by its nature a very stable employment area.

We may also notice that in Oxford a comparable concentration of educational services in the professional and scientific classification was countered partly by a larger element of other kinds of services, such as distribution, which would be less stable, and by its very important vehicles industry, which is not marked by stability. The average rate of unemployment for Oxford has been higher than for Cambridge and its annual values have fluctuated more widely. Other comparisons for Bedford, Peterborough, Reading and Lincoln, all point to one main conclusion: that while there is no simple and obvious explanation of the differing levels of unemployment in these towns, a strong professional service sector seems to help to keep them low, and probably to keep them more stable. For example, the fact that about 18% of the total labour force in Cambridge is in education could well result in a level of unemployment about 0.5% lower than elsewhere at a time when average unemployment is 4%, and about 0.25% lower when it otherwise stands at 2%.

This suggests an interesting comparison. We have calculated what the unemployment rate would have been in the Cambridge EEA if, within every broad industrial category, the average unemployment rate had been the same as in the country as a whole. We find that in January 1972 it would have been 3.9% compared with an actual figure of 1.9% and six months later 3.0% compared with 1.7%. These crude comparisons conceal a great deal that arises out of variation within the categories. For example, in 1970 the unemployment rate in the service industries in the Cambridge EEA stood at only 0.7% compared with a sub-regional average of 1.1% and a national average of 1.9%. A considerable part of this undoubtedly arises out of the differing composition of that sector. A similar point can be made about the manufacturing industry. What finally seems to emerge is likely to surprise nobody who knows Cambridge. The stability of employment is largely due to the University and a few large old-established but alert employers. It may also to some extent be due to the fact that planning policy has so discouraged the arrival of new industry which may possibly be inexperienced and less resilient.

Chapter 19

Industrial Linkages

When we began our study we knew very little about the markets for the products of the sub-region, and the sources and nature of its inputs. There was need to explore these matters, both in order to see the links between the sub-region and the rest of the world, and in order to examine the inter-dependence of industrial, commercial, university and other activities within the sub-region. We therefore devised an Industrial Linkages Survey (ILS). This and its main results are now described. An appendix presents our more detailed findings.

We felt that a detailed survey of a kind that would be useful in a reliable statistical analysis was neither necessary nor practicable. Had we been attempting a refined input-output study a different approach would have been necessary: but it is doubtful whether such a study would have led to useful policy-making conclusions. Our aim was to gain sufficient insight to enable us to make strategic recommendations, and to do so with the resources at our disposal. A survey requiring precise replies to carefully defined questions would almost certainly have led to a lower response than we achieved, and probably would have produced a less correct impression.

Even while we were devising this survey, a similar one with a somewhat different purpose was being conducted by the Huntingdonshire County Council. They agreed to incorporate some of our ideas in their questionnaire and an analysis of their initial returns helped us to improve upon our own draft questionnaire. To avoid duplication we did not ourselves question firms in Huntingdonshire.

The questionnaire was modified and extended in certain areas (see Table 19.1) at the request of adjoining local planning authorities who co-operated in this survey. Firstly, Hertfordshire CC were themselves conducting a major survey of all firms in the County, and we incorporated some of their questions in our questionnaire for the Royston area, where they managed the survey on our behalf. Secondly, certain questions were asked in the Saffron Walden area at the request of Essex County Council.

The sub-region includes Haverhill where several, but not all firms had already been subjected to a detailed enquiry by the Centre of East Anglian Studies in the University of East Anglia, sponsored by the Leverhulme Trust. The UEA project was to enquire into the impact of industrial growth at Haverhill as part of a much wider investigation of industrial movement in East Anglia.

Table 19.1 Management of Industrial Linkages Survey

Employment Exchange Area	Local Planning Authority (County Council)	Questionnaire	Survey by
Cambridge	Cambs. and Isle of Ely	CSRS	CSRS
Huntingdon	Huntingdon and Peterborough Cambs. and Isle of Ely	Huntingdon and Peterborough CSRS	Huntingdon and Peterborough CSRS
St. Neots	Huntingdon and Peterborough Bedfordshire	Huntingdon and Peterborough	Huntingdon and Peterborough
Royston	Hertfordshire Cambs. and Isle of Ely	CSRS* CSRS	Hertfordshire CSRS
Saffron Walden	Essex	CSRS*	CSRS
Newmarket	West Suffolk Cambs and Isle of Ely	CSRS CSRS	CSRS CSRS
Haverhill	West Suffolk Cambs. and Isle of Ely	UEA/CSRS† CSRS	CSRS CSRS
Ely	Cambs. and Isle of Ely	CSRS	CSRS

* Signifies a modified questionnaire.

† In the case of Haverhill, letters were sent to the firms covered by the UEA Survey asking permission to have access to such information that they had made available to Mr. Moseley of the University of East Anglia. We had access only for those replying favourably.

Our own questionnaire, unmodified by consideration of needs such as these, was sent out in the remainder of the sub-region, i.e. mainly in the Cambridge, Ely and Newmarket employment exchange areas.

The purpose of our survey was to shed some light on the economic linkages of the sub-region. The main questionnaire was designed specifically for manufacturing firms. In the adjoining counties where other surveys were being conducted the authorities aimed at a full coverage of manufacturing firms, mainly because they had different purposes than we had. In the area covered by our own questionnaire we tried to identify firms employing over 5 persons by using various registers. A copy of our questionnaire and covering letter sent to them is included as an Appendix. Reminder letters and telephone calls helped to improve the response and to remove ambiguities.

Table 19.2 shows the response that was obtained from the various industrialists in the sub-region.

The ILS covered approximately 73% of the manufacturing employment of the sub-region in 1971. The response varied from EEA to EEA, and it is particularly noticeable that there was a high response in the TDA towns compared with that from the rest of the sub-region. Many reasons can be given for this pattern. One must be that many of the new firms in the TDA's analysed their linkages in some detail when moving to this area, so that questions on their linkages were not particularly difficult for them to answer.

We sent a similar, but simplified, questionnaire to wholesalers and distribution depots. The response was poor, but we have used some of the data elicited in our analysis of employment ancillary to agriculture.

Table 19.2 Response to Industrial Linkages Survey

EEA	Forms sent (1)	Replies	% Response	% Manuf. employees (2)
Cambridge	127	53	41	74
Huntingdon	80	54	68	75
St. Neots	62	39	63	77
Royston	34	18	52	67
Saffron Walden	22	9	41	57
Haverhill	53	41	77	85
Newmarket	39	17	43	60
Ely	26	12	46	44
Sub-region	443	243	54	73

Notes:
(1) Although establishments were the unit of coverage, the figure for Cambridge includes only one form for the various establishments of the Pye Group in the EEA. The figures exclude forms sent out to firms that had ceased to operate.
(2) Based on E.R.II estimates for 1971. This column expresses the employment in the responding firms as a percentage of total manufacturing employment. There were very few specific refusals, but these and the non-returns make the picture less complete than we would have liked in certain areas and in certain manufacturing groups.

The results have been analysed by EEA which permits easy cross-referencing to the various area desk studies based on the EEA's of the sub-region. This is justified partly because the survey has revealed very little linkage between activities in the various parts of the sub-region. The main exception to this is the Pye of Cambridge group.

In Table 19.3 we present estimates of employment in various manufacturing groups in 1971, apportioned to the eight employment exchange areas. Table 19.4 indicates the numbers of employees in each group covered by the industrial linkage survey (including the co-operating surveys). The row and

Table 19.3 Manufacturing employment in the sub-region in 1971 by EEA

Manufacturing group (1)	Cambridge	Huntingdon	St. Neots	Royston	S. Walden	Haverhill	Newmarket	Ely	Sub-Region
Food, drink and tobacco	2,415	326	129	183	17	929	98	326	4,423
Chemicals and allied industries	1,641	100	222	64	40	362	–	2	2,431
Metal manufacture	17	7	4	4	4	20	–	–	56
Mechanical engineering	999	656	572	91	487	1,101	335	282	4,523
Instrument engineering	2,699	9	94	463	18	–	–	–	3,283
Electrical engineering	4,408	458	34	347	212	710	949	45	7,163
Shipbuilding	67	16	4	61	–	–	–	85	233
Vehicles	1,566	230	44	4	22	4	1,093	30	2,993
Other metal goods	266	95	42	588	9	238	25	4	1,267
Textiles	129	83	24	–	–	64	4	2	306
Leather and leather goods	248	166	4	20	–	–	86	21	545
Clothing and footwear	62	16	351	4	–	337	18	176	964
Bricks, pottery, glass cement	516	332	105	919	82	–	64	32	2,050
Timber, furniture	505	635	76	8	42	404	38	82	1,790
Paper, printing and publishing	2,655	599	613	113	335	160	623	247	5,345
Other manufacturing industries	383	1,808	764	148	291	516	–	204	4,114
TOTAL	18,576	5,536	3,082	3,017	1,559	4,845	3,333	1,538	41,486

Based on SIC (1968) excluding SIC II Mining and Quarrying

Source: Department of Employment, E.R.II Estimates (Revised)

Table 19.4 Manufacturing employment in the responding firms, by EEA

Manufacturing group	Cambridge	Huntingdon	St. Neots	Royston	S. Walden	Haverhill	Newmarket	Ely	Sub-Region
Food, drink and tobacco	1,612	180	121	171	–	887	3	279	3,253 (73)
Chemicals and allied industries	1,960	50	76	65	80	315	8	–	2,554(100)
Metal manufacture	–	8	–	–	–	13	–	–	21 (37)
Mechanical engineering	–	504	460	–	421	904	65	145	2,499 (55)
Instrument engineering	2,077	–	82	417	13	–	–	–	2,589 (78)
Electrical engineering	3,979	383	25	279	–	498	778	30	5,972 (83)
Shipbuilding	49	15	7	–	–	–	–	–	71 (30)
Vehicles	1,500	201	16	–	23		1,280		2,820 (94)
Other metal goods	50	90	44	–	–	214	–	–	398 (31)
Textiles	–	69	38	–	–	75	8	–	190 (62)
Leather and leather goods	89	128	–	–	–	–	–	–	217 (39)
Clothing and footwear	–	9	323	–	–	259	22	46	659 (68)
Bricks, pottery, glass cement	137	361	119	936	–	–	–	–	1,553 (75)
Timber, furniture	19	539	66	–	44	415	36	26	1,145 (63)
Paper, printing and publishing	2,276	452	543	19	103	120	–	110	3.623 (67)
Other manufacturing industries	28	1,692	448	145	210	415	8	53	2,999 (72)
TOTAL	13,776 (74)	4,681 (85)	2,368 (77)	2,032 (67)	894 (57)	4,115 (85)	2,008 (60)	689 (44)	30,563 (73)

Bracketed figures show the row or column total as a percentage of the corresponding total in Table 19.3.

Source: ILS

column totals of Table 19.4 have been expressed as percentages of those in Table 19.3 to facilitate comparison. Some of the discrepancy is due to differing dates and changing structures, but mainly it is due to lack of response or inadequate coverage. Thus these figures should be treated with caution, particularly when dis-aggregated to the fine level of one particular manufacturing group in one particular EEA. There is a very much better picture of the sub-region's largest manufacturing industries in electrical engineering, paper and printing, instrument engineering, chemicals and food, with exceptions in one or more areas and in mechanical engineering. Unfortunately the results are less satisfactory in the smaller groups (i.e. shipbuilding, leather goods) and in the large mechanical engineering group. This last point is important because some of the small firms in this general manufacturing group may be dependent on the larger firms,

even though those firms may not be so dependent on them. Thus their linkages may be of a very local nature, and might involve a considerable degree of sub-contracting.

Although this Report looks at manufacturing industry and industrial linkages in 1971, it must be remembered that the employment/industrial situation is never static. Employment in the sub-region has increased by over 20,000 persons in the period 1951–1971. It has not always been a steady and consistent growth, and parallels can be drawn with the periodic fluctuations of the national economy. At the same time, however, there are underlying trends in certain manufacturing groups. Thus in general terms the 1971 employment estimates show an absolute decline from the 1970 estimates, and if they were available the estimates for 1972 and 1973 would, without doubt. be different again.

Consequently since our surveys were undertaken in 1971/72, and employment data was specifically requested for April 20th 1972, employment levels will have changed. Indeed some establishments had closed down, and perhaps more significantly in this growing south-west corner of East Anglia, several new firms had come to the Town Development Schemes within the sub-region, while others were proposing to do so. They are not covered by this Report. Furthermore, several of the TDA firms covered by our surveys have now grown quite substantially. One of the reasons they left London was that they sought room to expand.

The results of the survey have been augmented by information from published sources including articles in the local and national press, hand-books and guidebooks. This was usually done when information was not forthcoming from an industrialist. On the other hand, where published sources have been our only source of data the firms are not included in the statistics presented in Tables 19.2 and 19.4.

A detailed analysis appears as an Appendix written by the team member responsible for the survey. Here we may note certain broad conclusions.

As one would expect in an area that is deficient in supplies of raw materials, most manufacturing establishments receive almost all of their raw material from outside the sub-region. This is also true for supplies of components. The exceptions are certain food industries. Most establishments also send their products to destinations outside the sub-region. Local markets are of little importance, except in the food and paper industries.

The respondents to the survey revealed no special linkages. For example, they made no reference to links between the science-based industries and the University. Few firms revealed any future plans. Comments were made on the poor provision of public transport (particularly in the market town EEA's) and the lack of skilled labour.

Chapter 20

Incomes*

Knowledge of incomes of people in different parts of the sub-region, and of workers in various industries, can help us in several ways. It has been argued by some who advocate a relaxing of the constraints on city growth that these constraints are keeping incomes lower than they are elsewhere. To examine this kind of assertion we need information about present, or recent, levels of earnings. One of our tasks is to consider future levels of spending in shops, on cars, on houses and other things. This involves making some kind of prediction of incomes, which in turn requires information about the present, on which the predictions can be based. We would also like to consider relationships between such matters as household income and car-ownership.

There is an adage that where there is a tax there is a statistic. Indeed, except for statistics derived from censuses, most of our economic and commercial statistics arise out of a collection of data for taxation purposes. Unfortunately the statistics that are produced by the tax-collecting authority are essentially by-products, and at times they are simply not available in a useful form. Since almost every recipient of income is required to make an annual return that includes the addresses of the employer and of the taxed person, the Inland Revenue Commissioners have a large amount of data that are sought by spatial analysts. In recent years there has been an increasing tendency to present some of this information on a regional or county basis, but every such improvement in presentation has involved additional work for an organisation that is almost continuously having to cope with the consequences of tax-changes. Not unnaturally, there is a great reluctance to agree to the production of special tabulations for a sub-regional study. If it is done once, it will have to be done again. At times the matter of confidentiality is raised as a reason for not yielding to requests for further information, but the real obstacle is undoubtedly and understandably, a reluctance to open the door to a flood of requests that would involve a permanent, and probably growing, expansion of work. It is to be hoped that one day the tax collection authorities will collect and store their information in a way that will facilitate the production of more detailed spatial tabulations, and so reduce the need of choosing between special costly surveys and attempts to make do with inadequate data. Such a change in procedure could well eventually lead to a reduction in

* I am grateful to my Manchester colleague Mr. A. L. Traill for his assistance with this chapter.

overall government expenditure, and would certainly lead to a better and more efficient system of information.

We can, however, use some data derived from the results of the 1970 New Earning Surveys. These surveys are based on a sample selected by exchange of national insurance cards. Arrangements are made for civil servants and Post Office employees whose national insurance contributions are paid without the use of cards to be included in the population from which the sample was chosen (but it does not include British or foreign servicemen stationed in Britain). The final coverage was about 1 in 130 of the employees in employment in Great Britain, in 1971.

The data relate to total gross pay. This includes basic pay, overtime pay, shift pay, payments by results bonuses, commission, etc. before PAYE, National Insurance and other deductions.

Generally, pay excludes the value of payments in kind. Where employers provide accommodation, meals etc. for agricultural and catering workers, the statutory wage regulation orders lay down values for pay purposes. Table 20.1 presents information about the gross weekly earnings of male full-time workers aged over 21 engaged in manual work. It is given for Great Britain, and the South-Western economic planning division of East Anglia, which approximates to the Cambridge sub-region. It is clear that the median income revealed by the survey is lower than the national median.

Unfortunately, although the standard error of the median is available, comparison of medians derived from these samples is far from easy. Even so, the evidence seems to suggest that full-time adult men in manual employment in the sub-region earn less than they do on average throughout the country.

The same table also gives data for full-time adult men engaged in non-manual work. The same conclusion emerges. It also seems to be true for female workers in non-manual employment, despite the fact that the sample value of the lowest decile – representing the income beneath which ten per cent of the earnings are to be found – is a trifle higher in the sub-region.

Table 20.2 looks at the information in another way. It can be seen that the very low income group, representing incomes of under £15, contained a higher proportion of total adult male manual workers in the south western sub-division of East Anglia than in the country as a whole. This is also true of the income groups £15–£19.99 and £20–£24.99. In fact, in this area approximating to the sub-region 49.2%

Table 20.1 Gross weekly earnings of full-time workers aged 21 and over, April 1970

	Lowest decile £	Lower quartile £	Med. £	Upper quartile £	Highest decile £
Male Manual					
South West	16.3	19.4	23.7	28.8	34.4
GB	17.0	20.8	25.6	31.3	37.7
Male non-manual					
South West	18.9	23.1	30.7	39.5	51.8
GB	19.5	24.2	31.4	41.1	55.0
Female non-manual					
South West	10.3	12.0	14.7	17.8	21.7
GB	10.2	12.4	15.9	20.6	27.6

Note: 'South-West' means the south-western sub-division of East Anglia. It approximates to the Cambridge Sub-Region.

Source: 1970 New Earnings Survey.

Table 20.2 Percentage distribution of gross weekly earnings, April 1970

	<£15	£15–19.99	£20–24.99	£25–29.99	£30–39.99	£40–49.99	£50+
Male manual							
South West	4.9	20.1	24.2	27.4	20.1	2.5	0.8
Great Britain	4.3	17.5	20.4	29.3	19.7	5.5	1.5
Male non-manual							
South West	1.8	12.8	15.2	17.6	29.2	11.7	11.7
Great Britain	0.9	10.5	12.8	20.9	27.8	13.6	13.5
	<£10	£10–13.99	£14–17.99	£18–23.99	£24–29.99	£30–34.99	£35+
Female non-manual							
South West	11.5	30.5	33.3	18.1	5.7	1.0	0.9
Great Britain	8.4	27.6	26.6	21.4	8.2	3.5	4.3

Source: 1970 New Earnings Survey.

of these workers earned less than £25 per week. The national percentage was 42.2. There was a slight clustering of workers with earnings between £30 and £39.99 but whereas 7% of British male manual workers earned more than £40, only 3.3% of the sub-region's male manual workers did so.

When we look at male non-manual workers a very similar pattern emerges. In the sub-region 29.8% of them earned less than £25, whereas the national percentage was only 24.2. Once more, the sub-region has a slightly higher proportion of people earning £30–£39.99 than does the country as a whole, but whereas 27.1% of the nation's non-manual adult male workers get over £40 a week, this is true of only 23.4% of those in our sub-region.

For female non-manual workers the contrast is even greater. 75.3% get less than £18 per week, whereas the national percentage is only 62.2. Here there is now clustering higher up the scale. Nationally 7.8% of these non-manual female workers earn over £30 per week, but in our sub-region only 1.9% do so.

We do not have data for the south-western sub-division of East Anglia on an industrial or occupational basis. We do, however, have it for the whole region of East Anglia, which we may compare with other regions. It is clear from this regional comparison that, compared with national levels, earnings in agriculture, electrical engineering and vehicle building are low. On the other hand in these two manufacturing industries the kind of work that exists in the region is far from representative of these industries at a national level.

Professional and scientific male non-manual workers were less likely to be getting under £25 in the East Anglia than elsewhere. The regional percentage was 18.3, compared with a national percentage of 22.1. But they were also less likely to be earning more than £30, with the regional and national percentages being respectively 61.7 and 63.9. A slightly higher fraction of the regions workers in this category earned more than £50. The regional and national percentages were 15.3 and 15.8.

We also have data for females in this industrial group. Here there is a very marked concentration in the lower pay scales. While 20.3% of these workers received less than £14 per week nationally, in East Anglia the percentage was 32.0. Only 9.5% earned more than £30, compared with a national percentage of 18.8.

This regional analysis, which could be continued, is not necessarily relevant to the sub-region with which we are concerned. We do, however, have two pieces of information that are not uninteresting. According to a sample survey of the same kind carried out in 1967, average earnings for males aged 18–64 in East Anglia were about 90% of the national average earnings. In the county of Cambridgeshire excluding the municipal borough of Cambridge they were about 86 or 87% of the national level. But in the municipal borough itself they were a trifle above the national level, at around 103%. The information appears in Table 20.3. We know nothing about the distribution of these data, or about their statistical reliability.

Table 20.3 Average earnings in civil employment, 1967/68

		Males aged 18–64	Females aged 18–59
Cambridgeshire and Isle of Ely	a	92.7	(101.4)
	b	94.8	103.1
Cambridgeshire and Isle of Ely excluding Cambridge MB	a	86.1	(87.7)
	b	87.6	(91.8)
Cambridge MB	a	102.0	(109.0)
	b	104.9	(110.0)
East Anglia	a	90.1	93.6
	b	91.0	94.3
Great Britain	a	100.0	100.0
	b	100.0	100.0

Notes

a. those who had paid 48 or more National Insurance Contributions.

b. those who had 48 or more contributions paid or credited.

Figures in brackets are based on a sample of less than 100. Average size of sample in Cambridge and Isle of Ely approximately 280 males and 95 females.

Source: DHSS

We also have a special print-out of earnings in Cambridge and the rest of the sub-division in April 1971. This is based on the New Earnings Survey for that year. It shows that male manual workers in full-time employment had average weekly earnings of £27.04 in Cambridge, compared with £26.12 in the rest of the sub-division and £26.80 in East Anglia. Full-time non-manual male workers earned only £36.07 in Cambridge compared with £39.90 elsewhere in the sub-region and £36.50 on average in East Anglia. Female manual workers averaged £13.72, which was 72p higher than elsewhere in the sub-region but 31p lower than the average for East Anglia. Non-manual female workers earned £20 precisely. This was £2 higher than elsewhere in the sub-region, and £1.97 higher than the average for East Anglia.

Finally, reverting to the data for the area approximating to the sub-region, we may compare it with that for the 57 other areas into which the country has been divided for purposes of earnings analysis by the Department of Employment. In Table 20.5 we have indicated the ranks of the sub-region's decile, quartile and median incomes. The ranks for male manual workers are all in the lower or mid thirties. In other words, there were rather more areas with higher median incomes than with lower median incomes; and similarly for the various deciles and quartiles. On the other hand it is a different story for non-manual workers. The low paid were on the whole paid less than the low paid in most other places, but the median and better paid were paid more than those in most other places. For female non-manual workers the reverse is true. The low paid were amongst the highest low-paid anywhere, but those who were well-paid had the lowest high pay anywhere.

Table 20.5 Rank of earnings in the Sub-region compared with earnings in all other areas of GB, 1970

	Lower decile	Lower quartile	Mean	Upper quartile	Upper decile
Male manual (58 area)	35	31	34	33	36
Male non-manual (48 area)	25	30	17	20	21
Female non-manual (46 area)	6	13	22	45	46

Source: 1970 New Earnings Survey.

What seems to emerge is that on the whole the sub-region's income structure compares unfavourably with the national average, but that this is not necessarily the case for Cambridge itself. On the other hand one expects urban incomes to be above average. There is nothing here to answer the question whether income would be higher if the city were to grow.

Before we try to answer this question we must make one point about the distribution of incomes in Cambridge. We have no reliable data, but it seems likely that the city has an unusual income distribution, with an unusually high proportion of moderately well paid persons, and another unusually high proportion of rather poorly paid persons. If we had access to better data we could check this judgement, but we do not. If it is true, however, it represents an important problem, which statistics of averages will conceal, just as they also conceal the large numbers of people who are at neither of these extremes.

If the city were to grow significantly it would probably lead to higher incomes. Existing firms, until now able to expand only with difficulty, would be allowed to develop, and housing programmes would help to attract workers. It is likely that in some cases higher wages would also have to be offered in order to attract enough labour. Moreover these expanding existing firms would be competing with each other for both existing and new labour. New firms would arrive, widening the range of jobs and in some cases reducing the supply of labour available for existing jobs. For all of these reasons, wage-rates would probably be increased.

On balance it is likely that a significant expansion of the city would increase both the range of jobs and the level of wages. This could be unwelcome to existing major employers, including the colleges. The industrial employers would to some extent be able to recover their increased costs through putting up prices, but they would also look for ways of economising in the use of labour. The colleges would have a more difficult problem. Unless their fees or other incomes increased adequately they would in some cases be forced into drastic changes of their employment structure.

Chapter 21

Housing*

We have already looked at certain features of housing in the areas centred on the market towns. Now we must look at Cambridge and its immediate hinterland, and at the sub-region as a whole. In doing so we meet problems, both because of changes in the definitions used in population censuses and because housing statistics are most abundant for areas whose boundaries differ substantially from those of the employment exchange areas. We begin by looking at the story for the city of Cambridge and the two rural districts of Chesterton and South Cambridgeshire. This is an area whose boundary is very different from that of the Cambridge EEA, but which has useful statistical information. Usually we will be able to present it separately for each of the three administrative areas.

In 1971 there were about 34,000 private households in the city of Cambridge, 18,000 in Chesterton RD and 12,000 in South Cambridgeshire, RD. The average household size was lower in Cambridge than in the rural districts, and, as one would expect, there was a much higher proportion of its total population living in some form of institution. The detail appears in Table 21.1. About 7,800 of the 10,320 persons living in 'non-private establishments' were in educational establishments. Most, but not all of these, were in buildings associated with the University.

Table 21.1 The position at Census day, 1971

	Cambridge MB	Chesterton RD	S. Cambridgeshire RD
Total population	98,840	53,657	36,756
Population in private households	88,520	51,200	35,970
Householders present	33,940	17,870	12,300
Householders absent	790	350	245
Average household size	2.61	2.86	2.92
Occupied dwellings	32,640	18,135	12,515

Source: Census of Population

The tenure of dwellings varies considerably between these three areas, as is shown in Table 21.2. In the city just over

* Much of this chapter rests on an analysis undertaken by my Manchester colleague Mr. Stuart Farthing.

Table 21.2 Households by tenure, 1971

	Cambridge MB		Chesterton RD		S. Cambridgeshire RD	
	Number	% of all dwellings	Number	% of all dwellings	Number	% of all dwellings
Owner occupiers	14.070	41.6	9,765	56.3	5,905	48.5
Council tenants	9,640	28.5	3,980	22.9	3,735	30.7
Rented unfurnished	4,775	14.1	2,635	15.2	2,000	16.4
Rented furnished	5,295	15.7	955	5.5	530	4.3

Source: Census of Population

two-fifths of the private households live in owner-occupied dwellings, but in Chesterton RD the porportion is as high as 56%. The number of council tenants is not unduly high in the City. Indeed, it is slightly lower in proportional terms than it is in South Cambridgeshire. Where the biggest difference is to be observed is in the proportions of households living in privately rented furnished accommodation.

There are certain statistics that help to shed light on the 'adequacy' of the stock of houses. These are presented in Table 21.3. In interpreting them we have to be careful, especially in the city of Cambridge. In many cases students, both undergraduate and postgraduate seek accommodation of a kind that will satisfy them for a few years. If the rooms are dry and reasonably lit and warmed. and there is access to adequate sanitary and cooking facilities, they are often prepared to put up with slight inconveniences rather than to pay for accommodation of a higher standard. Indeed, the absence of this kind of 'sub-standard' accommodation could impose considerable financial burdens on these students, and on other people who have this kind of preference. What one needs is a study of the household characteristics including employment and marital status, of the residents of shared and sub-standard dwellings. We have to remember that while both students and widowed pensioners may form single-person households with low incomes, their housing needs differ.

Table 21.3 Indicators of the adequacy of the stock of dwellings, 1971

	Cambridge MB	Chesterton RD	S. Cambridgeshire RD
Non-permanent* dwellings	70 (65)	525 (515)	110 (100)
Unshared dwellings not providing the exclusive use of hot water, fixed bath and inside wc	5,230	2,050	1,515
Shared dwellings	1,135	70	25
Total	6,435	2,645	1,650
% Occupied stock	19.7	14.6	13.2

* The number of caravans in the total is shown in brackets

Source: Census of Population

In Table 21.4 we present a size-distribution of the 'sub-standard' dwellings within the City. In the third column the number of such dwellings is expressed as a percentage of the total number of unshared dwellings of that size. This is a percentage that might be expected to decrease with the size of the dwelling, but in this case the trend is sharply interrupted when we reach dwellings of between 4 and 6 rooms. An unusually high proportion of these fail to provide exclusive use of all of the indoor basic sanitary facilities to their occupiers. This can, of course, in some cases be simply because the basic structure has been adapted so that one or two rooms provide a separate 'dwelling' (according to the Census definition) whose occupant(s) have to share some facility with the people living in the rest of the house.

Table 21.4 Cambridge MB sub-standard dwellings by size, 1971

Room	No. of dwellings		% of all unshared dwellings of that size
1	780		71.9
2	290		24.2
3	280		13.2
4	645		13.4
5	1,400	3,060	16.8
6	1,660		16.9
7	120		6.6
8+	55		3.5
	5,230		

Source: Census of Population

We can shed some light on the problem by looking at the tenure-structure of the households in this sub-standard accommodation. The basic data appear in Table 21.5.

As we can see, about 12% of owner-occupiers living in the city of Cambridge lacked exclusive use of all basic facilities. It was much the same in Chesterton RD, and not much better in South Cambridgeshire. Council tenants were less well off in the city than in the other areas, in this respect, but not significantly worse than owner-occupiers. The big differences occur within the privately rented sector, and especially in the furnished accommodation. This tends to substantiate the point that has just been made, namely that much of it is to be explained in terms of there being a high demand for this kind of accommodation, in preference to something better at a higher price, in a University town.

Not unexpectedly, shared dwellings are also more common in the city of Cambridge. We may note with some interest

Table 21.5 Households in sub-standard accommodation
Households without the exclusive use of hot water supply, fixed bath and inside w.c. by tenure, 1971

Tenure	Cambridge MB		Chesterton RD		S. Cambridgeshire RD	
	Number	% of total*	Number	% of total*	Number	% of total*
Owner-occupiers	1,685	11.9	1,195	11.7	585	9.8
Council tenants	1,180	12.2	345	8.7	380	10.2
Renting unfurnished	1,755	46.7	285	29.6	590	29.4
Renting furnished	2,840	63.5	155	15.2	80	14.5
Total	7,460	22.0	2,480	13.9	1,635	13.3

* Percentages represent the number of households of that tenure who lack exclusive use as a proportion of the total number of households of that tenure.

Source: Census of Population

the number of owner-occupier households sharing dwellings, which seems to imply a joint ownership of one dwelling by two (or more) resident households. One possible explanation of this is a tendency on the part of postgraduate students and younger staff to purchase cheap property jointly. Much more significant is the very high proportion of privately rented furnished accommodation that exists in shared dwellings. The data appear in Table 21.6.

It should be mentioned that of the 705 non-permanent dwellings recorded in the three administrative areas and indicated in Table 21.3, just under a third provided their occupants with exclusive use of all basic facilities.

Another possible indicator of the adequacy of housing stock is provided by statistics of overcrowding. The definition of 'overcrowding' is that the ratio of persons to rooms should exceed unity but not 1.5, while 'severe overcrowding' is recorded if this ratio exceeds 1.5. It is, of course, a definition that rests to some extent on the definition of a room: and that was not always very satisfactory in the 1971 Census.

Even when there are empty houses there can be problems of overcrowding. The empty houses may be of a size, cost or location that makes them unacceptable, or unavailable to those who live in overcrowded conditions.

In the city of Cambridge 245 households come into the 'overcrowded' category and a further 805 into the 'severely overcrowded'. Taken together these represent just over 3% of all households. There were similar proportions (2.7% and 3.4%) in the rural districts of Chesterton and South Cambridgeshire. Some further detail appears in Table 21.7. On balance, overcrowding is not a problem in the area. It is, however, useful to look at some more detail about the occupancy of houses, especially within the city (partly because more information exists for municipal boroughs than for rural districts). In Table 21.8 we show the average number of persons per room according to the size of the household and the tenure. It can be seen that for small households (of three persons or fewer) the density of occupation is highest in the rented furnished sector, but that when the household size reaches four, the density of occupation in council owned property begins to equal, and then to exceed it.

As Table 21.9 shows, the proportion of households living in small dwellings is much higher in Cambridge than elsewhere, but there is also a high proportion living in dwellings of six rooms. An appendix to this chapter introduces the concept of 'household space' which may be looked upon as another synonym for 'accommodation'. In Table 21.10 we tabulate in parallel the size distribution of household spaces measured by the number of rooms, and the size distribution of households measured by the number of persons. It reveals very clearly the marked imbalance between the two distributions. It is not an undesirable imbalance. If 25% of all households have only 1 person but only 6% of all household spaces have only 1 room then it means that many one-person households have at least two rooms in which to live: and this means that we can expect the numbers of household spaces with several rooms to exceed the numbers of households with the corresponding numbers of persons in them. An undesirable imbalance would put high percentages at the top of the household space column, and low percentages at the top of the household size column.

Table 21.6 Households sharing dwellings by tenure, 1971

	Cambridge MB		Chesterton RD		S. Cambridgeshire RD	
	Number	% *	Number	%	Number	%
Owner-occupiers	480	3.4	45	0.5	15	0.2
Council tenants	25	0.3	10	0.2	5	0.1
Rented unfurnished	350	7.3	30	1.1	10	0.5
Rented furnished	2,225	42.0	65	6.8	20	3.8

* Percentage of total households of that description

Source: Census of Population

Table 21.7 Households in permanent dwellings by level of crowding and type of household space, 1971

Type of Household Space	Severely overcrowded			Overcrowded		
	Cambridge	Chesterton	S. Cambridge	Cambridge	Chesterton	S. Cambridge
(a) Households in unshared dwellings	160	50	40	780	415	380
(b) Households in self-contained accommodation within shared dwellings without exclusive use of sink and stove	10	–	–	–	–	–
(c) as (b) but with exclusive use of sink and stove	10	–	–	5	–	–
(d) Households not in self-contained accommodation without exclusive use of sink and stove	45	10	5	10	5	–
(e) as (d) but with exclusive use of sink and stove	20	–	–	10	–	–
Total	245	60	45	805	420	380

Source: Census of Population

Table 21.8 Persons per room by size of household, 1971

Tenure	Size of household					
	1	2	3	4	5	6+
Owner-occupiers	0.19	0.35	0.51	0.67	0.78	0.91
Rented from council	0.33	0.46	0.61	0.76	0.91	1.16
Rented unfurnished	0.24	0.39	0.54	0.70	0.80	0.93
Rented furnished	0.57	0.60	0.68	0.77	0.83	0.97

Source: Census of Population

Table 21.9 Occupied dwellings by size of dwelling, 1971

	Cambridge		Chesterton RD		S. Cambridgeshire RD	
All sizes	32,640		18,135		12,515	
1 room	1,180	3.6%	130	0.7%	75	0.6%
2 rooms	1,295	4.0%	405	2.2%	250	2.0%
3 rooms	2,230	6.8%	860	4.7%	560	4.5%
4 rooms	5,015	15.4%	3,640	20.1%	2,330	18.6%
5 rooms	8,540	26.2%	6,050	33.4%	4,820	38.5%
6 rooms	10,225	31.3%	4,650	25.6%	2,840	22.7%
7 rooms	2,060	6.3%	1,315	7.3%	795	6.4%
8 rooms	940	2.9%	585	3.2%	430	3.4%
9 rooms	505	1.5%	220	1.2%	200	1.6%
10+ rooms	660	2.0%	280	1.5%	220	1.8%

Source: Census of Population

Table 21.10 Cambridge MB household spaces and households by size, 1971

Rooms	Household spaces by number of rooms		Persons	Household size by number of persons	
1	2,195	6.5%	1	8,600	25.4%
2	1,825	5.4%	2	10,650	31.4%
3	2,695	7.9%	3	6,015	17.7%
4	5,180	15.3%	4	4,815	14.2%
5	8,465	25.0%	5	2,330	6.9%
6	9,970	29.4%	6	970	2.9%
7	1,880	5.5%	7	305	0.9%
8+	1,665	4.9%	8+	180	0.5%

Source: Census of Population

There is no doubt that some overcrowding exists, and Table 21.11 presents a little more information about it. It exists mainly, and very markedly, amongst households of six or more persons. It is for this size of household that the housing stock of Cambridge, after allowing for the prevalence of shared dwellings, is most deficient.

Table 21.11 Households by size and density of occupation in Cambridge MB, 1971

Households by size	Household living at the following densities of occupation (persons per room)			
	Over 1		Under ½	
1	–	–	5,205	60.5%
2	145	1.4%	6,550	61.5%
3	50	0.9%	685	11.4%
4	65	1.3%	145	3.0%
5	130	5.6%	25	1.1%
6	320	33.0%	5	0.5%
7	195	63.9%	–	–
8+	135	75.0%	–	–

Source: Census of Population

We may now look at some recent trends. Between 1961 and 1971 all three areas now being considered increased their population. The city grew by less than its own natural increase, but both Chesterton RD and South Cambridgeshire RD experienced a net inward migration exceeding natural increase. On the other hand, there was a marked difference between the growth in population and the growth of households, as is shown in Table 21.12.

In the city of Cambridge a growth of 3.5% in the total population, and of only 2.6% in the population in private households, was accompanied by a growth of 14.8%, in the actual number of households. The average household size fell from 2.91 persons to 2.61 persons, being significantly lower than in the two rural districts (where it fell from 2.96 to 2.86 and from 2.99 to 2.92). To some extent problems of student enumeration have affected these figures, but they do not explain them away.

Table 21.12 Growth of population and households 1961–1971

	Cambridge MB	Chesterton RD	South Cambridge RD
Enumerated population	3,313	9,081	7,393
Enumerated households	4,386	3,593	2,838
Enumerated private household population	2.293	8,930	7,655

Source: Census of Population

Changes of definition complicate analysis of tenure changes, but it appears that within the city of Cambridge there was, if anything, a slight decrease in the proportion of owner-occupied houses. One important reason for this must be the shortage of suitable sites for private building. Some detail appears in Table 21.13, where it should be noted that in 1971 the dwellings formerly listed as 'with employment' and as 'Farm or business' were re-allocated between the other categories.

To some extent this may account for the increase in privately rented accommodation that is to be observed in all three areas: but we may note that in Cambridge the increase exceeded the total number of re-allocated tenures, whereas in the rural districts it is quite clear that most of the re-allocation went to some other category of tenure. There is no doubt that there was a real growth of rented furnished accommodation in the city during the sixties. Data from the 1966 Sample Census confirm this.

In Table 21.14 we look at the sizes of households enumerated in the city. It may be recalled that while the 1961 census was taken in term-time, it was thought that not all of the students were recorded in the 1971 Census. Thus the student mobility cannot explain the remarkable growth of one-person households.

No doubt many of these are students but that is a different matter. What is more interesting is that 30% of all one-

Table 21.13 Tenure changes 1961–71: households by tenure 1961 and 1971

	Cambridge				Chesterton				South Cambridgeshire			
	1961		1971		1961		1971		1961		1971	
1 Owner-occupiers	12,172	42%	14,070	41.6%	6,557	46.8%	9,765	56.3%	2,988	32.2%	5,905	48.5%
2 Renting from council	7,355	25.4%	9,640	28.5%	3,042	21.7%	3,980	22.9%	2,721	29.3%	3,735	30.7%
3 Renting unfurnished	5,563	19.2%	4,775	14.1%	2,184	15.6%	2,635	15.2%	1,573	16.9%	2,000	16.4%
4 Renting furnished	2,460	8.5%	5,295	15.7%	413	2.9%	955	5.5%	266	2.9%	530	4.3%
5 With employment	1,274	4.4%			1,494	10.6%			1,445	15.5%		
6 Farm or business	175	0.6%			329	2.3%			298	3.2%		

Source: Census of Population

Table 21.14 Cambridge MB distribution of households by size 1961 and 1971

Number of persons	1961 Number	1961 % of all households	1971 Number	1971 % of all households
1	4,344	14.7	8,600	25.4
2	8,656	29.3	10,650	31.4
3	6,566	22.2	6,015	17.7
4	5,182	17.5	4,815	14.2
5	2,497	8.4	2,330	6.9
6+	1,754	5.9	1,450	4.3

Source: Census of Population

person households were listed as owner-occupiers, with 22% being local authority tenants. Those in privately rented accommodation numbered 48%. Just under a third of them were in unfurnished accommodation.

Almost half of the one-person households in Cambridge are of pensionable age and 85% of these are women. A quarter of the one-person households share dwellings with other households, and in the majority of cases it is rented furnished accommodation that these people occupy.

When we look at the broad picture for the sub-region we again face boundary problems. We are also having to write before publication of all of the relevant data for 1971. For this purpose we have defined the sub-region as an aggregation of the local authorities listed in Table 21.15. In 1971 it contained 138,480 occupied dwellings of which 32,640 were in the municipal borough of Cambridge. Earlier censuses provided data of actual housing stock, whether occupied or not. In Table 21.16 we show how these houses were divided between urban and rural areas in the various census years.

Table 21.15 Housing stock, occupied and vacant dwellings; 1951/61/66 – occupied dwellings, 1971

	1951 Total dwellings	1951 % vacant	1961 Total dwellings	1961 % vacant	1966 Total dwellings	1966 % vacant	1971* Total occupied dwellings
Cambridge MB	24,618	2.96	29,102	2.16	30,070	2.99	32,640
Ely ED	2,862	4.08	3,128	2.39	3,320	5.12	3,365
Chesterton RD	11,483	3.34	14,621	2.51	16,410	4.14	18,135
Ely RD	4,659	3.43	4,822	2.25	4,930	3.24	5,415
Newmarket RD	6,428	3.88	7,363	3.70	8,230	4.73	8,565
South Cambridgeshire RD	8,066	5.03	9,857	4.11	11,120	4.04	12,515
Huntingdon MB / Godmanchester MB	2,279	2.58	2,876	3.05	4,380	4.10	5,130
St. Ives MB	1,019	3.33	1,366	2.19	1,760	3.97	2,330
St. Neots UD	1,462	2.66	1,894	3.06	3,600	6.11	4,870
Huntingdon RD	2,590	6.37	3,124	4.32	3,850	5.97	4,285
St. Ives RD	3,475	3.97	4,646	2.38	4,870	3.08	6,110
St. Neots RD	2,248	5.73	2,485	4.78	2,570	6.22	3,305
Royston UD	1,361	2.64	1,966	3.00	2,100	2.38	2,740
Saffron Walden MB	2,208	4.21	2,675	2.80	3,200	2.50	3,410
Saffron Walden RD	5,533	5.65	6,384	5.05	6,870	5.96	7,275
Haverhill UD	1,444	2.97	1,895	1.68	2,960	3.71	3,905
Newmarket UD	3,061	3.33	3,787	2.58	4,110	3.64	4,605
Clare RD	2,882	8.43	3,061	6.89	3,430	4.66	3,515
Mildenhall RD	4,350	4.09	5,525	4.12	2,090	2.96	8,365
Net Total Sub-Region	92,028	3.93	110,577	3.09	124,870	3.94	138,480
GB (000's)	13,912	–	16,419	–	17,660	–	18,967

*1971 Only information on occupied dwellings available, definition of dwelling changed.
Note: Census Stock at April, GB at 31 Dec.

Source: Housing and Construction Statistics DOE, Census of Population 1951, 1961, 1966, 1971

Table 21.16 Dwellings – urban/rural split, 1951–71

	1951 Number	1951 %	1961 Number	1961 %	1966 Number	1966 %	1971 Number	1971 %
Urban	40,314	(43.8)	48,689	(44.0)	55,500	(44.4)	59,585	(43.0)
Rural	51,714	(56.2)	61,888	(56.0)	69,370	(55.6)	78,895	(57.0)
Total	92,028	100	110,577	100	124,870	100	138,480	100

Source: Census of Population

Table 21.17 shows the contributions of building in the public and private sectors, and of demolition, to the total housing stock. It reveals that approximately 63,000 of the 140,000 or so dwellings in the sub-region have been built since 1955. This amounts to about 45% of the total, compared with a national figure of about 28%. It will also be noticed that over 64% of the home-building in the sub-region has been carried out in the private sector, compared with 53% nationally. In many parts of the sub-region the percentage is very much higher.

Another feature of the sub-region is the comparatively low proportion of houses that have been demolished or closed. In recent years many properties that have been officially closed have been rehabilitated to re-enter the housing stock, due partly to changes in public policy and partly to the acceleration of house prices. A similar trend is likely to lead to an improvement in the provision of basic facilities in houses at present lacking them. Some data on the incidence of these needs are presented in Tables 21.18.

Statistics of household size, of overcrowding and of tenure do not reveal anything that requires further comment beyond that already made in the area studies.

Certain general points must now be made. Housing is not a single homogeneous commodity. Even otherwise identical houses must differ in their location, and at times even a small difference here may be extremely important to certain people, and can consequently affect price. Our analysis of housing in the city of Cambridge has revealed both the shortage of houses suitable for households of about six persons, and the fact that many large houses have been adapted to multiple-use in a way that to some extent has reduced the stock of houses of a size that seems to be required. If we had had more time we could have looked at this kind of problem, both in Cambridge and elsewhere in the sub-region, in more detail. What is important is that the housing authorities should use the results of the 1971 Census, including data about the age structure of the population and the likely course of migration to evaluate, on a local basis, the adequacy of the housing stock when houses of different sizes and tenures are taken into account. It is an exercise that is time consuming rather than difficult.

A second point concerns house prices. There is no simple explanation of these. As far as we can see, prices in Cambridge are more or less what one would expect in a town so close to London, subject to high immigrant

Table 21.17 Dwellings constructed by public and private sectors, demolished and closed, 1956–1972

Area	Total dwellings constructed	Public sector total	% of total	Private sector total	% of total	Dwellings demolished or closed	Proportion D and C to Total constructed
Cambridge MB	10,267	4,519	44.0	5,748	56.0	1,662	16.2
Ely UD	1,175	462	39.3	713	60.7	136	11.6
Chesterton RD	7,965	2,191	27.5	5,774	72.5	944	11.9
Ely RD	1,617	383	23.7	1,234	76.3	203	12.6
Newmarket RD	2,982	718	24.1	2,264	75.9	568	19.0
South Cambridge RD	5,520	1,631	29.6	3,889	70.4	675	12.2
Huntingdon MB / Godmanchester MB	3,845	2,414	62.8	1,431	37.2	237	6.2
St. Ives MB	1,944	288	14.8	1,656	85.2	41	2.1
St. Neots UD	3,770	1,764	46.8	2,006	53.2	163	4.3
Huntingdon RD	2,052	539	26.3	1,513	73.7	427	20.8
St. Ives RD	3,080	712	23.1	2,368	76.9	172	5.6
St. Neots RD	1,665	88	5.3	1,577	94.7	194	11.7
Royston UD	1,669	426	25.5	1,243	74.5	81	4.9
Saffron Walden MB	1,415	332	23.5	1,083	76.5	95	6.7
Saffron Walden RD	2,266	493	21.8	1,773	78.2	294	13.0
Haverhill UD	3,397	2,744	80.8	653	19.2	161	4.7
Newmarket UD	1,972	840	42.6	1,132	57.4	134	6.8
Clare RD	1,334	295	22.1	1,039	77.9	151	11.3
Mildenhall RD	4,789	1,657	34.6	3,132	65.4	594	12.4
Net total Sub-Region	62,724	22,496	35.9	40,228	64.1	6,932	11.1
E. Anglia Region*	156,819	50,472	32.2	106,347	67.8	19,498	12.4
Great Britain*	5,377,563	2,548,970	47.4	2,828,593	52.6	1,208,645	22.5

* 1961–71 Only for E. Anglia – unable to disaggregate 1950–1960 Figures for EA
** 1956–1971 Only for GB – 1972 figures not available at present
\+ Some Houses closed are reopened at a later date

Sources: DOE Local Housing Statistics, Housing and Construction Statistics (previously Housing Statistics)

Table 21.18 Households with exclusive use of certain amenities: 1961/66–71

	1961		1966		1971	
	Number	%	Number	%	Number	%
Cambridge MB	21,198	73.1	21,890	69.2	26,430	77.9
Ely UD	1,902	63.1	2,180	70.1	2,655	80.2
Chesterton RD	8,526	60.8	11,310	72.7	15,385	86.1
Ely RD	2,567	55.0	3,170	66.6	4,455	83.3
Newmarket RD	3,994	57.0	5,630	73.5	7,170	85.2
South Cambridge RD	5,288	56.9	7,710	74.1	10,665	86.7
Huntingdon MB }	1,866	67.4	3,450	82.3	4,600	90.0
Godmanchester MB }						
St. Ives MB	997	75.7	1,440	88.3	2,140	93.2
St. Neots UD	1,182	65.2	2,750	82.1	4,475	92.6
Huntingdon RD	1,933	65.3	2,860	80.8	3,795	89.6
St. Ives RD	2,730	61.3	3,290	70.9	5,080	84.5
St. Neots RD	1,384	59.6	1,730	72.2	2,890	88.9
Royston UD	1,461	77.6	1,690	87.1	2,505	91.9
Saffron Walden MB	1,776	69.5	2,390	77.3	2,995	89.4
Saffron Walden RD	3,508	59.9	4,540	71.4	5,980	84.5
Haverhill UD	1,210	65.8	2,300	81.6	3,565	92.4
Newmarket UD	2,288	62.8	3,150	75.2	3,945	86.4
Clare RD	1,463	53.0	2,460	77.6	2,935	87.2
Mildenhall RD	3,283	62.7	5,300	78.6	7,340	89.3
Net total Sub-Region	68,556	62.9	89,240	73.6	119,005	86.1
GB	11.3 M	69.4	12.4 M	72.9		

Note: 1961: Amenities included cold and hot water taps, fixed bath, wc
1966: Amenities included hot water, fixed bath, inside wc
1971: Amenities included hot water, fixed bath or shower, inside wc

1966 figures from the sample census reduce in reliability as the areas get smaller in size and the sample is reduced.

Source: Census 1961, 1966, 1971 including unpublished tables

pressures, but with little free land. A few miles outside the city, prices of 'comparable' houses tend to be lower, at least to the north, but no hard and fast rules can be stated. What can be said, however, is that if planning policy restricts the amount of new house-building that can occur in an area where an increasing number of households want to live then local house prices are going to rise faster than they would otherwise do. Moreover, the demand for houses in second-preference locations will also be higher than would otherwise be the case, and if land-owners are astute this can lead to higher land-prices, and so to higher house prices, in those areas where building is permitted. Whether, despite this, the policy of constraint on development brings an overall benefit to the community is a different but relevant question. All that is being said now is that house prices in and around Cambridge would almost certainly be less high if planning control had been less strict.

Chapter 22

Tourism

Nobody who visits Cambridge in the summer months can fail to notice that he is not the only visitor. From around Easter until the autumn visitors from overseas and other parts of this country are very much in evidence. They may be day visitors, or they may be staying in a hotel, a boarding house, a college or with friends. They may be in Cambridge for business, sight-seeing or some other reason. They spend money, they take up space on the pavements and roads, they visit colleges and to some extent become a nuisance at times. A similar story is true for Ely, while other towns in the sub-region also attract visitors.

The latest available information about tourism on a national scale, published in Trade and Industry on December 21st 1972, indicated that the number of visits to the United Kingdom by overseas visitors had risen from 4,300,000 in 1967 to 7,000,000 in 1971, while their spending in this country rose from £236 million to £489 million. The average length of stay of these overseas visitors declined from 17.1 days in 1967 to 14.7 days in 1971, while the average expenditure per day rose from £3.1 to £4.7. Those coming on business stayed for shorter periods but spent more heavily.

Undoubtedly London was the main attraction. Some 80% of all visits included at least one night in London. Just over 70% of visitors stayed in one place only, and 80% of these stayed in London. All in all, 45% of the nights spent by overseas visitors in this country were spent in London.

The British Tourist Authority has collated information from a variety of recent surveys that show the popularity of Cambridge amongst overseas visitors. In Table 22.1 we indicate the results. For each country the year is the date of the most recent survey, while the percentage indicates the fraction of visitors to the United Kingdom from that country who visited Cambridge. The Table also shows the numbers of visits in 1971 to the United Kingdom from various countries as reported in Trade and Industry. In addition there were 168,000 visits from other western European countries, 415,000 from other non-sterling area countries, 721,000 from the Irish Republic and 351,000 from other sterling area countries.

The final column of Table 22.1 presents estimates of the numbers of visitors to Cambridge in 1971, based on the assumption that these can be derived by multiplying the

Table 22.1 Overseas visitors to Cambridge by country of origin

Country of origin	Date of survey	Visitors to Cambridge as % of visitors to UK	Visits to UK in 1971 (000s)	Estimated visits to Cambridge (000s)
Canada	1971	24	437	105
USA	1971	25	1,637	409
France	1969	13	710	92
Holland	1969	5	452	22
Belgium	1969	4	209*	12
Switzerland	1969	12	189	26
Italy	1964	18	201	36
Germany	1968	14	698	98
Spain	1968	29	94	27
Sweden	1970	11		
Denmark	1966	19	315	38†
Norway	1970	6		
Finland	1966	18		
South Africa	1968	20	116	23
Australia	1967	47	179‡	84

* Including Luxembourg
† Based on an assumed percentage of 12% for Scandinavian countries
‡ Including New Zealand

Source: Trade and Industry, Dec. 1972

number of visits to the United Kingdom from a specified country by the latest available estimate of the percentage of visitors to the United Kingdom from that country who visited Cambridge. These estimates total 972,000. But in addition there were some visitors from the countries not listed in this table. The number of visits to the United Kingdom from these countries was 1,655,000. If we assume that 10% of the people making these visits paid a visit to Cambridge, we get a total of about 1,140,000 overseas visitors to Cambridge during 1971.

This is obviously a very unreliable estimate and there is little that can be done to assess exactly how unreliable. We do not know much about the 'popularity' surveys, or about changes in popularity over time. We shall, however, use it as the basis of our very tentative estimates.

In order to supplement our information we conducted two sets of surveys. One was a survey of guests at hotels and boarding houses throughout the sub-region. 2,093 forms were left with the proprietors of a sample of these, and guests who stayed on one or more nights between September 2nd and September 5th, 1971, were asked to complete the forms and to post them to us. It was not a successful survey. Only 396 forms were returned, and 75 of these were incomplete. On these nights the establishments concerned had a total bed-night occupancy of 3,100. There was also a very heavy bias towards certain hotels, and especially towards one of the larger hotels where residents would almost certainly be atypical of overnight visitors to the sub-region.

The second set of surveys was conducted with the help of street interviews. A pilot survey was conducted between September 6th and September 12th 1971, mainly by stopping people in the forecourt of Kings College. Over the whole week 18,483 people were counted as crossing a survey line between 10.30 am and 12.30 pm or between 1.30 pm and 6.00 pm. Just over 2,000 of these were stopped by our interviewers. Forty percent of them were day-visitors, 16% were staying visitors, and the rest were students, workmen, and others wishing to enter Kings College. Approximately a half of those who declared themselves to be visitors were interviewed more closely. They included 378 day visitors and 182 visitors who were staying for at least one night. The number coming from Great Britain was 247, and 40% of these, representing about 18% of the total, came from East Anglia. Forty percent of the day visitors from overseas came from the USA.

The interviewed visitors who stayed for at least one night stayed for an average of just over four nights, and their average expenditure in shops was about £4 per night. We also received credible information about expenditure by day-visitors, but since the day was not over this was not reliable for further calculations. Nevertheless, the pilot street survey seemed to warrant a more extensive survey during the summer of 1972. It was conducted in Cambridge and Ely on various days between May and September. In both cases interviews were held at spots which most tourists and sight-seeing visitors were likely to pass.

The main results of the survey are presented in Tables 22.2–22.7. Not unexpectedly, the proportion of overseas visitors was higher than in the pilot survey conducted in September 1971. It came to over 50% in Cambridge, but to much less than this in Ely, as can be seen from Table 22.2. Almost a half of the overseas visitors to Cambridge were staying overnight, but just over a quarter of the British visitors did so. Very few visitors to Ely – but a tenth of the total – stayed a night.

Table 22.2 Origins of visitors to Cambridge interviewed by length of stay

	UK			Overseas		
	Day visit	Overnight visit	Total	Day visit	Overnight visit	Total
Cambridge	1,166	444	1,610	996	830	1,826
Ely	316	31	347	130	11	141
Total	1,482	475	1,957	1,126	841	1,967

Source: CSRS Tourist Survey

Table 22.3 shows that undoubtedly the car was the most popular mode of travel to Cambridge by British visitors. Overseas day visitors also used it more than any other means, while over a third of overseas visitors who were staying in Cambridge arrived there by car. In Ely the dependence on cars was even more apparent. It may be noted that the visitors to Cambridge who expressed their intention to visit some other place were in most cases intending to visit Ely, as can be seen from Table 22.4.

Before looking at matters of expenditure we may glance at Table 22.5 which shows the main subjects of adverse comment by visitors to Cambridge and Ely. As one might

Table 22.3 Mode of travel* to town of interview of visitors interviewed

Place of interview	Mode of travel	UK Origin		Overseas origin		Total
		Day visit	Over-night visit	Day visit	Over-night visit	
Cambridge	Car	854	310	470	308	1,942
	Train	137	131	280	369	917
	Coach tour	141	29	179	54	403
	Service bus	42	8	30	27	107
	Other	11	33	29	87	160
Ely	Car	259	17	114	7	397
	Train	15	–	6	2	23
	Coach tour	22	4	6	2	34
	Service bus	2	–	–	–	2
	Other	17	8	3	–	28

* In some cases two modes of travel were named

Source: CSRS Tourist Survey

Table 22.4 Other places visited by Cambridge visitors

Ely	559
S. Walden	15
Newmarket	37
St. Ives	4
Huntingdon	11
St. Neots	1
Royston	10
Haverhill	1
Other	
Total	831

Source: CSRS Tourist Survey

Table 22.5 Subjects included in adverse comments made about Cambridge and Ely by visitors to the two boroughs

Subject	Cambridge	Ely
Parking	266	37
Signposting	127	27
Information Centre	66	5
Railway Station Info.	22	0
Toilets	173	19
Guiding facilities	65	3
Traffic free areas	241	0
Evening Entertainment	28	2
Cafes	153	21

Source: CSRS Tourist Survey

Table 22.6 Average length of stay of those visitors who spent at least one night in Cambridge or Ely

	Average length of stay (days)	
	Cambridge	Ely
UK visitors	3.5	5.4
Overseas visitors	3.1	6.4

Source: CSRS Tourist Survey

expect, car-parking tops the list. It would in most British towns, even the ugly ones. We should, however, be less complacent about other matters listed, especially sign-posting, information centres and toilets. Whether the provision of more cafes to meet tourist demands would be economically successful is doubtful, and is a matter that should be left to cafe proprietors and to those establishments that are most visited by tourists.

In Tables 22.6 and 22.7 we present information about the length of stay of visitors who stayed at least one night, and the average levels of expenditure in shops. These data are based on replies to more detailed enquiries made of a selection of the people interviewed. We shall now use this information to make an estimate of total tourist expenditure in Cambridge shops.

It can, of course, be argued that people who stayed overnight in Cambridge had a greater chance of being interviewed than those who made only a brief visit. We have considered this carefully but feel that most people visiting King's would do so on one occasion, and that most tourists visiting Cambridge would visit King's. In short, there does not seem to be much substance in the suggestion that the chance of being interviewed would increase with the length of the visit.

If this is accepted, we may for certain purposes amalgamate day visitors with staying visitors and deduce from Table 22.2 that for every 1,000 overseas visitors to Cambridge there were 882 British visitors. Applying this deduction to our estimate of overseas visitors to Cambridge based on Table 22.1 we estimate that there were 1,005,000 British visitors to Cambridge. This assumes that the ratio of overseas visitors to British visitors observed between May and

Table 22.7 Shopping expenditure by visitors to Cambridge and Ely

	Origin	Length of stay	Number of visitors	Total expenditure	Average expenditure
Cambridge	UK	Day	547	2,141.50	3.92
		Overnight	214	723.43	3.38
	Overseas	Day	405	1,656.80	4.09
		Overnight	306	1,887.71	6.19
Ely	UK	Day	171	292.27	1.74
		Overnight	13	61.80	4.76
	Overseas	Day	42	79.97	1.90
		Overnight	11	17.48	1.59

Source: CSRS Tourist Survey

September is also true for the rest of the year. It almost certainly is not, and it seems likely that we have underestimated the number of British visitors.

Tables 22.2 and 22.7 indicate the proportions of visitors from overseas and the United Kingdom who were day visitors or staying visitors, and the average levels of spending in shops by these visitors. Applying these estimates to our estimates of total visitors we obtain the following estimates of expenditure in shops by visitors to Cambridge.

Overseas staying visitors	£6.19 x 1,140,000 x 0.545	= £3.85m
Overseas non-staying visitors	£4.09 x 1,140,000 x 0.455	= £2.12m
UK staying visitors	£3.38 x 1,005,000 x 0.276	= £0.94m
UK non-staying visitors	£3.92 x 1,005,000 x 0.724	= £2.85m
Total		£9.76m

This estimate of almost £10 million is, it must be emphasised, very tentative. I suspect that it is an underestimate, but it appears to be of about the right order of magnitude when taken in conjunction with estimates of expenditure in shops by other people, and compared with independent evidence of total expenditure. It is also true, of course, that most of the staying visitors spent on accommodation and meals. If our estimates are correct, almost 900,000 persons stayed in or close to Cambridge for an average of rather more than three nights during 1971. This amounts to an average of over 8,000 visitors staying in or very close to Cambridge each night: and obviously it means much more than this at the height of the season. Even if the average expenditure per day on food and accommodation is as low as £1.50, this means an annual expenditure of about £4.4m. My guess is that it is probably more like £8m, or even higher.

While they bring money and employment to the area, tourists also bring problems. These are evident in the streets and in the colleges. The colleges cannot, and should not, completely close their doors to visitors, but in some cases it may become necessary to insist on visitors joining guided parties at pre-announced times, and to charges being imposed.

Chapter 23

Shopping

The principal shopping centre in the sub-region is Cambridge. Figures derived from Inland Revenue returns suggest that at April 1st 1967 there were 3,717,700 square feet of shopping floorspace in the sub-region, occupied by 2,372 shops. Cambridge municipal borough had 1,680,000 square feet of the space and 911 of the shops. This comparison has to be treated with some caution since the figures include restaurants and cafes, and 'also banks, estate agents, etc., in shopping areas'. Shops assessed for rating purposes with living accommodation are excluded. Nevertheless, Cambridge stands out clearly as the main shopping centre. Outside the sub-region, but not far from it, are other substantial shopping centres, including Peterborough (with 600 shops and 1,195,000 square feet) and Bedford (with 650 shops and 1,363,000 square feet).

Data supplied by the planning authorities to the Cambridge Transportation Study attributed 2,419,000 square feet of shopping floorspace to the City. This difference, not uncommon between planning authority statistics and those based on rating returns, is not really very important. The planning authority statistics indicate that the historic centre had 1,260,000 square feet of shopping floorspace, while Fitzroy Street/Burleigh Street had 334,000 square feet.

The Censuses of Distribution for 1961 and 1966 – the latter on a sample basis – also provide some information which, although now out of date, serves as a useful check on some of our own calculations for later years. The 1961 census puts retail sales in Cambridge at £25.5 million. The sample census undertaken five years later estimated sales at £38.0 million.

In Chapters 11–17 we have given accounts of shopping in the areas centred on the market towns. In this chapter we shall concentrate on shopping in Cambridge, partly because it is the sub-regional centre, but also because shopping brings so much traffic to this centre, and contributes so much to those pressures for redevelopment that are of such concern to us.

Before we began our study there was already useful information about the origins of people who shop in Cambridge. The survey conducted by Cambridgeshire County Council in 1964 and reported in Official Architecture and Planning in August 1966, included questions about the frequency of day-to-day shopping and weekly shopping, the place of shopping, and other matters. Some of the conclusions presented in this report may be usefully considered at this stage.

The survey showed that 48% of the households in the City of Cambridge made 'both day to day shopping trips' and 'main weekly trips'. Those living outside the city were much less likely to do this. The proportion of households making 'day-to-day trips only' rose from 30% for those resident in the city to 43% for those living in the more remote villages. Day-to-day shopping was frequently combined with other activities, especially for those living in or close to Cambridge, but weekend shopping was less likely to be associated with other purposes, once again, especially for people living in or close to the city.

An analysis of the place of shopping pinpointed the importance of local trips:

"The outstanding feature of these Tables is the very high proportion of total shopping trips which were purely local – in the suburban centres, in the case of the City residents, and within the same village in the rural areas. Even for main weekly shopping an appreciable proportion of trips were local and the figures for the rural areas would undoubtedly have been higher if better facilities were available in the villages."

This is a paragraph that calls for some comment. The first point to note is that it concentrates on the shopping trip. It has a traffic orientation rather than implications for a study of expenditure. Later we shall see that throughout the sub-region most food is bought locally. Many day-to-day trips are made solely for the purpose of buying food, as are many week-end trips. A more important question than 'who shops where?' is 'who buys what where?' The only light shed on this by the County Council's survey comes from a question about where households did their 'luxury' shopping, which was described as 'such goods as furniture, major items of clothing and presents'. Some households named more than one place in response to this question. Thus, for example, 80 households might well give 100 answers, each answer being a place-name. It was found that 88% of the answers given by residents of the city specified Cambridge. Residents of Town Map No.2 area named Cambridge in 86% of their answers. Beyond there the proportion fell, reaching 30% in the outer villages, mainly by a growth of the percentages for the market towns and the principal shopping centres just outside the sub-region.

A second comment must be made. It is possibly true that a greater proportion of trips by residents of rural areas would have been local 'if better facilities were available in the villages'. But almost certainly the reason for the absence of better facilities in those villages is that prospective shopkeepers considered them to be commercially unviable.

The third point to note is that shopping trips other than day-to-day trips and mainly weekly trips are omitted.

The report of the survey also commented on the fact that households living further out made fewer shopping trips to Cambridge, but made more to the market towns and elsewhere. This, of course, is to be expected. But without further evidence it cannot be taken to imply anything about levels of spending in Cambridge by these more remote households. Do they travel less often but spend a great deal when they do? Market town evidence suggests that they do.

On the subject of shopping the report concludes that "even for more specialised shopping the effect on the City of further population growth in the outer areas of the County is likely to be significantly less than similar growth in or near Cambridge. Moreover, the considerable expansion proposed in several of the surrounding market towns and other regional centres . . . will probably enhance their attraction for this type of shopping and may further reduce the demands on Cambridge from the outer villages, helping to offset the effects of overall population growth."

With the first of these conclusions I have no quarrel. Quite clearly, people living twelve miles away from Cambridge will spend less in the city, on most types of goods, than those living two miles away, especially if they are within a more or less comparable distance of some other centre. On the other hand, the argument about the expansion of the market towns is less acceptable. A market town that grows from 10,000 to 20,000 population will undoubtedly capture a greater fraction of its own trade, and of trade from neighbouring villages. But it will not be able to provide shopping facilities in any way comparable to those in sub-regional centres. Consequently the additional population will be looking to Cambridge, and possibly to other major centres. Whether the net effect will be to increase or to decrease total spending in Cambridge cannot be answered without a more refined, and a more specific, analysis.

The Cambridge Transportation Study also provides information about people travelling to Cambridge in order to shop. A survey conducted between March and June 1967 showed that personal travel for the purpose of shopping accounted for 16% of all trips made in the area studied on Monday to Friday, and 31% of the trips made on a Saturday. (The area studied for this purpose extends beyond the city boundary by between three and eight miles. It is the area contained by the outer boundary in Map 6 Part One). 94% of the shopping trips recorded in the area on a weekday and 90% of those on a Saturday were purely internal to the area. This, however, is not a very meaningful statement. A trip is defined as a movement from an origin to a destination for one purpose only. We may note that over 60% of the shopping trips on Monday to Friday were 'unmotorised' which means on foot or bicycle. We may also note that on these days 17% of cycle trips and 24% of pedestrian trips had shopping as their purpose. Moreover, a walk 'between groups of shops' constituted a trip. If those groups of shops were both within the study area then movement between them would be an internal trip. A person travelling from outside the study area would make two non-internal trips (there and back, presumably by vehicle) and possibly half a dozen or more purely internal trips, moving about the shopping centre. Thus information about the internality of shopping trips gives no guide at all to the origins of shoppers.

A somewhat better guide is presented by some other information provided by the Transportation Study. This, which has been graphed in Maps 6 and 7 (Part One), shows the percentages of shopping trips originating in various zones that terminate (a) within that zone, (b) within the City of Cambridge and (c) elsewhere.

Once again, we have information about shopping trips, defined in this case in a way that can be misleading, but little that can help us to answer questions about expenditure patterns. In an attempt to overcome this we conducted four sets of surveys. Two sets were street surveys in the market towns and several shopping centres within Cambridge. There were also household surveys in selected settlements in the sub-region, and in Cambridge itself.

Some of our survey results have been presented in earlier chapters. We undertook street surveys on a market day and a Saturday in the autumn of 1971 in each market town, and the results have been presented in Chapters 11 to 17. At the same time we conducted surveys in the historic centre of Cambridge and in the Fitzroy Street/Burleigh Street area. In each town we selected certain interview points. Interviewers were required to walk from point to point, interviewing five persons at each point before moving to the next point. Appendix 8 gives more detail and includes maps showing the locations of the interview points.

The information derived from these street surveys was useful in defining catchment areas and telling us about mode of travel. It also gave us an indication of the level of spending. Much more detailed information came from a household survey conducted in 22 settlements in and close to the sub-region. They are listed in Table 23.1 and the location is shown in Figure 23.1. For each centre a sample of private households was selected by using electoral rolls. Households were put into small groups whose size depended on the number of households we wished to interview, and one household was selected from each group by use of random number tables. Each selected household was sent a questionnaire, which was based on reactions to a pilot survey conducted by us in Royston. Prepaid reply envelopes were enclosed, and a team of interviewers (of whom several were kindly supplied by the Department of Architecture in Cambridge University) later visited the non-responding households. It was impracticable to do this in Ely and Biggleswade and so a postal 'reminder' was sent to non-respondents in those towns. In both cases the postal reminder was more successful than the personal visit. Table 23.1 indicates the numbers of forms sent out in each of the settlements and the numbers returned. The Questionnaire and other information can be found in Appendix 9.

This survey was ambitious. Its main purpose was to provide sufficient information for us to build a model that would enable us to predict patterns of shopping expenditure by sub-regional residents, with particular attention to their spending in Cambridge, under a variety of assumptions about future levels and distributions of population and shopping facilities. The questionnaire had to be fairly detailed, and ideally it should have asked for information about levels of spending on a variety of categories of goods. We felt that we would probably get a poor or unreliable response to questions of this kind. Instead we decided to ask questions about a

Table 23.1 Settlements sampled for household questionnaire and returns received

Code	Settlement	Population	Questionnaires sent	Useful returns	% response	Fraction of households sampled
1	St. Ives	6,150(a)	411	238	58	1 in 5
2	Huntingdon	1,573(a)	439	209	48	1 in 11
3	St. Neots	1,463(a)	419	255	61	1 in 11
4	Haverhill	11,390(a)	427	239	56	1 in 9
5	Newmarket	12,167(a)	443	260	59	1 in 6
6	Ely	9,687(a)	411	262	64	1 in 7
7	Linton	2,630(b)	361	253	71	2 in 5
8	Saffron Walden	10,190(a)	432	254	59	1 in 8
9	Royston	8,280(a)	369	250	68	1 in 7
10	Biggleswade	9,140(a)	401	217	54	1 in 8
11	Chatteris	5,520(a)	399	194	49	1 in 5
12	Somersham	1,640(c)	263	101	38	1 in 2
13	Wilburton	760(b)	100	56	56	1 in 2
14	Soham	5,120(b)	361	225	62	1 in 5
15	Burwell	3,570(b)	385	259	67	3 in 10
16	Gt. Wilbraham	440(b)	76	58	76	1 in 2
17	Bassingbourn	2,060(b)	313	192	61	1 in 2
18	Histon-Impington	5,040(b)	358	232	65	1 in 5
19	Elsworth	530(b)	89	58	65	1 in 2
20	Gamlingay	2,260(b)	313	183	58	2 in 5
21	Shelford	7,110(b)	432	308	71	1 in 5
22	Melbourn	3,100(b)	364	202	55	1 in 2

(a) Total Civilian Population: Mid-year estimates 1970
(b) Total Private Household Population: Mid-year estimates 1970
(c) Total Private Household Population: Estimate April 1971

Figure 23.1 Towns sampled in the Household Shopping Survey

Key

- • Towns sampled
- o Other towns

selection of items, rather than to attempt to list all categories covered by, for example, the Family Expenditure Survey. But in making the selection we tried to find items whose place of purchase was likely to be indicative of where a wider range of items would be purchased. For example, the place where one buys sugar is likely to be the place where one buys jam and tinned fruit. We later used this idea in our analysis of the data, as described below.

Respondents were asked to state where certain articles of clothing and durable goods were *last* bought, within the previous two years and while living at that address, by a member of the household. A time as long as two years was taken so that such things as furniture or major clothing that may not frequently be bought by members of one household would be well represented in the replies. Purchases of food are made more frequently, and our questions about them related to a single week. We attempted to obtain information about quantities purchased during that week in various places.

The first step in the analysis of the data was to tabulate the results in a way that indicated the geographical distribution of answers to questions such as 'where did you last buy a gramophone record?' given by households in the various settlements.

We then assumed that the geographical pattern revealed by these replies was true for all households in the place concerned. In other words, we assumed that our sample was representative, and that non-respondents would have revealed the same pattern as respondents.

We thus obtained estimates of, for example, the numbers of households resident in place P who last bought a book in shopping area 12. These estimates should be taken as the most reliable useful analysis that can be made of the data. If certain assumptions are made even more useful analyses can emerge, but their reliability necessarily depends to some extent upon the importance and correctness, or accuracy, of the assumptions.

A question of some importance is how much money is spent in various shopping places on goods of various kinds by households resident in various areas. We have attempted to estimate this from our survey data. There are two basic assumptions.

1. That the patterns of spending on individual items, as revealed by the survey, are indicative of the patterns of spending on various groups of items, as listed in Appendix 10.

2. That households in the various towns and villages spend on various categories of goods in the same way as does the average household in East Anglia.

The first assumption is to some extent warranted by the fact that we did our best to select items that were likely to be typical of a wider range in precisely this way.

The second assumption is obviously an over-simplification. It takes no account of the undoubted differences that exist between household incomes and expenditures in one place compared with another. We had hoped to be able to do better than this, but at the moment we cannot. We have taken the 1970 Family Expenditure Survey and used it to obtain estimates of expenditure by the average household in East Anglia on the various categories of goods listed. Appendix 10 summarises the calculations that were made in order to make estimates of weekly spending per household on the principal groups of commodities.

We were then able to convert the replies into estimates of spending on a variety of categories of goods in several different shopping centres by residents of the twenty-two settlements.

In Table 23.2 we summarise some of the results of this survey and the associated assumptions. 'Major expenditure' has been defined as expenditure typified by spending on a suit, overcoat or raincoat, a piece of furniture, and a fridge or cooker. It is thus judged to include spending on floor coverings, soft furnishings, household textiles, gas and electrical appliances, radio, television and musical instruments and a variety of other appliances. 'Minor expenditure' is defined to be all other non-food expenditure in shops.

The principal data in this table are mapped in Maps 8, 9 and 10 (Part One). It has been remarked that since so much expenditure from the towns and villages listed here goes to places other than Cambridge it shows a degree of success for the policy of population dispersal. It is hard to see this. Obviously if all of these people were to be living in Cambridge they would be spending more there. But it is also true, for example, that if Linton grows we can expect something like 60% of the additional expenditure on major shopping items to come to Cambridge, while if Wilburton grows we can expect 23% of the additional major expenditure from there to be focussed on Cambridge shops. If the aim of policy has been to prevent the growth of pressure on Cambridge it has not succeeded. Growth anywhere in the

Table 23.2 Percentage distribution of expenditure by households in selected settlements

Settlement	Location a..d percentage of expenditure			
		Major exp.	Minor exp.	Food exp.
St. Ives	St. Ives	49	62	89
	Cambridge	17	16	3
	Huntingdon	12	3	3
	Peterborough	3		
	Elsewhere	12	15	5
	Mail order	7	4	
Huntingdon	Huntingdon	60	64	91
	Cambridge	10	9	
	Peterborough	7	3	
	St. Ives	3		
	Elsewhere	15	19	9
	Mail order	5	5	
St. Neots	St. Neots	55	65	90
	Bedford	17	12	4
	Cambridge	3	3	
	Elsewhere	17	15	6
	Mail order	8	5	

Table 23.2—continued

Settlement	Location and percentage of expenditure	Major exp.	Minor exp.	Food exp.
Haverhill	Haverhill	64	63	94
	Cambridge	14	13	
	Bury St. Edmunds	5	4	
	Elsewhere	11	15	6
	Mail order	6	5	
Newmarket	Newmarket	53	62	95
	Cambridge	20	14	
	Bury St. Edmunds	8	3	
	Elsewhere	14	17	5
	Mail order	5	4	
Ely	Ely	77	72	96
	Cambridge	11	13	
	Elsewhere	9	12	4
	Mail order	3	3	
Linton	Linton	3	13	70
	Cambridge	62	49	10
	Saffron Walden	12	12	5
	Haverhill	6	3	3
	Elsewhere	11	18	12
	Mail order	6	5	
Saffron Walden	Saffron Walden	67	67	93
	Cambridge	17	14	
	Elsewhere	12	16	7
	Mail order	4	3	
Royston	Royston	47	60	89
	Cambridge	19	15	
	Stevenage	11	7	3
	Melbourn	3		
	Elsewhere	16	15	8
	Mail order	4	3	
Biggleswade	Biggleswade	56	63	90
	Bedford	21	11	
	Hitchin	5		
	Stevenage	3	5	2
	Elsewhere	10	16	8
	Mail order	5	5	
Chatteris	Chatteris	41	59	92
	March	14	5	
	Peterborough	14	6	
	Cambridge	10	9	
	Ely	4		
	Wisbech	3		
	Elsewhere	7	16	8
	Mail order	7	5	
Somersham	Somersham	6	34	70
	St. Ives	33	22	13
	Cambridge	22	15	
	Huntingdon	18	7	6
	Peterborough	5	5	
	Bedford	3		
	Elsewhere	6	12	11
	Mail order	7	5	
Wilburton	Wilburton	3		33
	Ely	62	44	32
	Cambridge	23	30	5
	Haddenham		6	17
	Elsewhere	5	16	13
	Mail order	7	4	
Soham	Soham	36	55	86
	Ely	29	12	6
	Cambridge	17	11	
	Newmarket	4		2
	Bury St. Edmunds	3		
	Elsewhere	6	17	6
	Mail order	5	5	
Burwell	Burwell	5	24	75
	Cambridge	43	36	7
	Newmarket	25	15	11
	Bury St. Edmunds	5	3	
	Ely	4		
	Soham	3		
	Elsewhere	8	17	7
	Mail order	7	5	
Gt. Wilbraham	Gt. Wilbraham	7	8	33
	Cambridge	78	66	23
	Newmarket	5	4	3
	Fulbourn		6	11
	Balsham			4
	Elsewhere	6	14	26
	Mail order	4	2	
Bassingbourn	Bassingbourn	1	6	65
	Royston	36	39	20
	Cambridge	25	21	
	Melbourn	4		
	Baldock	3		
	Bedford	3		
	Letchworth	3	3	
	Stevenage	–	5	5
	Elsewhere	18	20	10
	Mail order	7	6	
Histon	Histon	2	20	73
	Cambridge	84	61	20
	Elsewhere	10	16	7
	Mail order	4	3	
Elsworth	Elsworth		5	50
	Cambridge	55	49	10
	St. Ives	15	17	19
	Cottenham	3		
	Fenstanton	3		
	St. Neots		7	3
	Huntingdon		3	
	Swavesey			3
	Elsewhere	17	13	
	Mail order	7	6	
Gamlingay	Gamlingay	7	22	71
	Bedford	25	18	2
	Cambridge	16	17	
	Biggleswade	15	11	10
	St. Neots	12	6	
	Melbourn	3		
	Potton			5
	Elsewhere	15	19	12
	Mail order	7	7	
Shelfords	Shelfords	6	28	66
	Cambridge	72	56	27
	Elsewhere	19	13	7
	Mail order	3	3	
Melbourn	Melbourn	4	9	68
	Cambridge	47	38	10
	Royston	27	29	14
	Stevenage	4	6	3
	Elsewhere	15	17	5
	Mail order	3	1	

Note:
Figures rounded to nearest 1%.
Centres drawing less than 2% aggregated into 'Elsewhere'.

Source: CSRS Shopping Survey, 1971.

sub-region has its impact on the shops of Cambridge. Only on its very fringe, in St Neots, is the effect of dispersed growth so small as almost to be negligible. We may note that Biggleswade was included in the belief that we would find it to be outside the effective market area of Cambridge.

We also conducted street surveys within Cambridge. There we identified twenty-three shopping centres. These are shown in Figure 23.2. Essentially the same procedure was followed as in the other street surveys, but we asked more questions.

Detailed tabulations of the answers exist. They are listed in Appendix 8 and can be made available to the planning authority. It is, however, useful for us to make a few comments on some of our results.

In all, 3,887 people were interviewed in these shopping areas. 1,439 of these arrived by car. A few, numbering 93, came as passengers and were dropped near the shopping centre. The majority – 935 – came by car and parked in a car park. The number parking in the street came to 411. About one person in eight – 495 out of those sampled – came by bus. There were almost as many by bicycle.

In particular we may note that both on ordinary weekdays and on Saturdays two-thirds of those interviewed in the historic centre were shopping. In Fitzroy Street/Burleigh Street it was a much higher proportion: 85% on most days but 90% on Saturday. On a weekday about 17% of those in the historic centre were there because of their work or attendance at a place of education, while a very similar percentage were there for personal reasons, visiting or sight seeing. It is interesting that on a Saturday this percentage rose to almost double its level earlier in the week. The real point is, however, that at present the historic centre is dominated by shopping but it also fulfils other functions. Fitzroy Street/ Burleigh Street is almost entirely a shopping centre.

A third of the people interviewed on ordinary weekdays in the historic centre – whatever their purpose – had come by bus while 37.4% had used cars. In Fitzroy Street/Burleigh Street an almost indentical fraction arrived by car, but only 19% by bus. This emphasises the local role of that shopping area, with about 44% of those interviewed arriving on foot or cycle, compared with only 30% in the historic centre. When one appreciates that the people interviewed in the historic centre were much more likely to be making short pedestrian trips to and from colleges the significance of this distinction rises. On a Saturday, however, the story changes. While 40% of those in the historic centre came by car and 26% by bus, in Fitzroy Street/Burleigh Street as many as 60% came by car and 15% by bus. Here a few points need to be made. Some of those interviewed on the Saturday in Fitzroy Street/ Burleigh Street had arrived there by car, and parked there, but were shopping in the historic centre where parking was more difficult. The second point is that at present bus services to the historic centre are more convenient than those to Fitzroy Street/Burleigh Street. If the scheme to expand shopping in this area goes ahead the re-routing of buses has to be an essential part of the scheme if it is to help to take pressure off the historic centre. There is abundant evidence from these surveys and other sources that those coming to shop in Cambridge from far afield are more likely to come to the historic centre, partly for what it offers, but partly because it is easier to reach by bus.

In Table 23.3 we list some of the more frequently stated reasons for shopping in the two centres. The importance of proximity to the home in Fitzroy Street/Burleigh Street compared with proximity to places of work and business in the historic centre is clear. A third of people shopping in the historic centre who answered this question stated that they were doing so because they had other things to do there. The historic centre is obviously considered to provide a better range of goods, while the smaller centre has a reputation for lower prices: but the numbers suggest that more people seek a wide range than a low price. The importance of specialist shops in the Fitzroy Street/Burleigh Street area may be noted. Often these go to areas of low rentals, and redevelopment can well drive them away.

Table 23.3 Reasons for shopping here.

	Weekday		Saturday	
	Histroic centre	Fitzroy Burleigh	Historic centre	Fitzroy Burleigh
Close to home	48	70	8	17
Close to work	111	42	7	1
Close to place of personal business	114	48	21	5
Goods cheaper	42	77	7	21
Better range	135	42	25	16
Better parking	0	44	0	18
One way lane	0	5	0	0
en route	10	16	0	5
Convenience	5	9	7	7
Other non-specified	33	30	14	8
Specialist	47	62	9	21

Source: CSRS Shopping Survey, 1972.

On any day about a fifth of those shopping in either centre were buying food, drink or tobacco. On an ordinary weekday, purchases of clothing and books and stationery were notably high in the historic centre, compared with Fitzroy Street/Burleigh Street, whereas this smaller centre was highly regarded as a place for the purchase of furniture, durables and do-it-yourself materials. On Saturday the relative attractions of the two centres for purchases of clothing came much closer together but otherwise the same pattern was maintained.

Information about the other shopping centres in Cambridge confirms the opinion that they depend very heavily on very local custom except in those few cases where parking facilities are good. Even then they get little trade from outside the City.

The remaining survey concerns spending by households resident in Cambridge. This was conducted in March 1972. It was similar to our survey of households in the sub-region but the sampling was done differently. Cambridge was

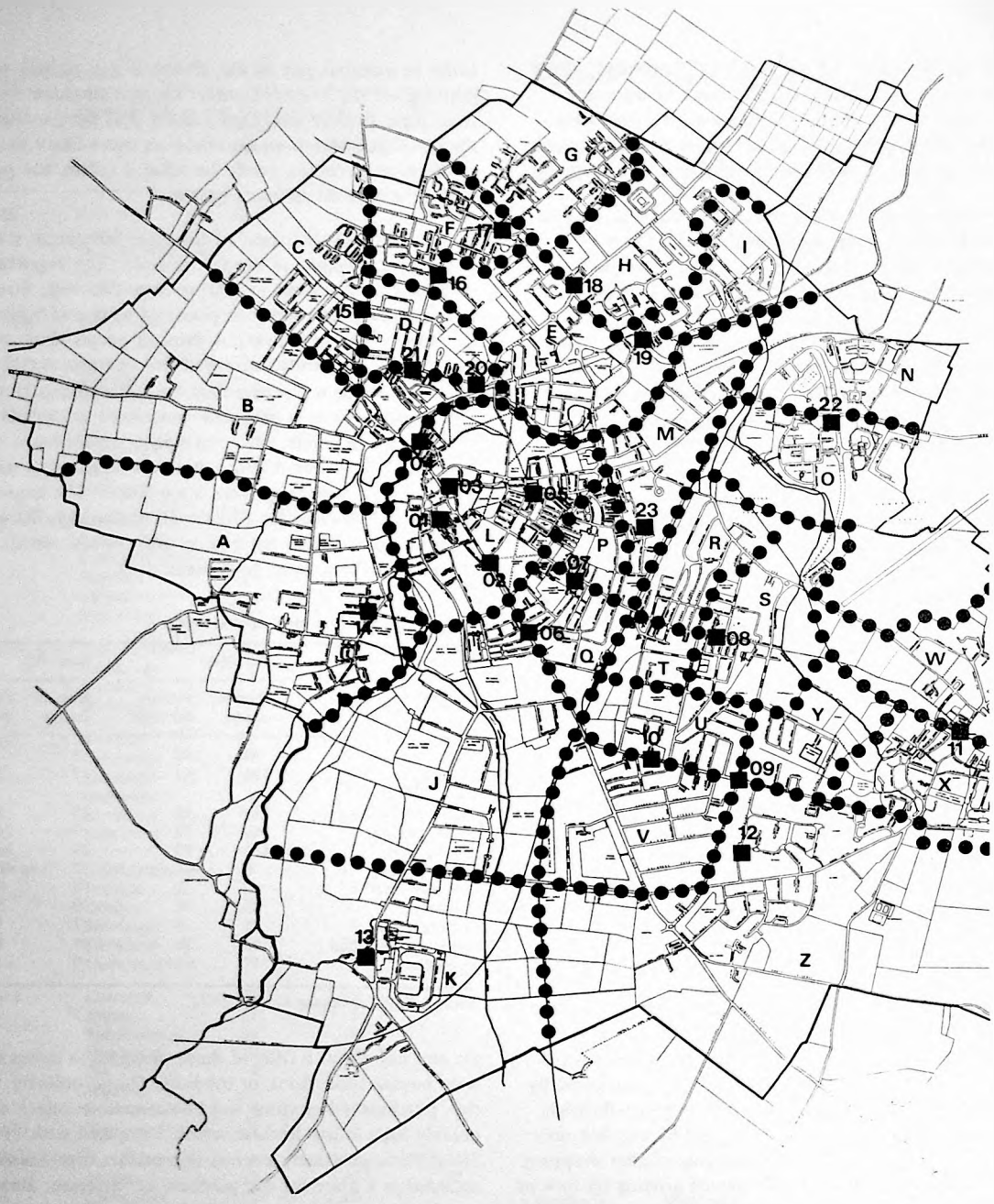


Figure 23.2 City shopping centres and zones

Key

●● Origin zone boundaries

A Zone identification letter

■ Shopping centres identified for city household survey and for street survey – as follows:

01 Central Cambridge
02 Regent St (Regal Cinema – Catholic Church)
03 King St
04 Bridge St /Magdalene St
05 Fitzroy/Burleigh St area
06 Hills Rd (Catholic Church – Station Rd)
07 Mill Rd (Gonville Place – Rly. Bridge)
08 Mill Rd (Rly. Bridge – Perne Rd)
09 Perne Rd /Cherry Hinton Rd junction
10 Cherry Hinton Rd /Hills Rd – Perne Rd
11 Cherry Hinton High St
12 Wulfstan Way
13 Trumpington
14 Newnham Rd
15 Histon Rd /Winsor Rd junction
16 Carlton Way
17 Arbury Court
18 Arbury Rd /Milton Rd junction
19 Chesterton High St
20 Mitcham's Corner
21 Victoria Rd
22 Barnwell Rd /Newmarket Rd junction
23 'The Beehive'

divided into 26 zones, as shown in Figure 23.2. Most of these were further divided into finer zones, resulting in a total of 69 'origin zones'. From each of these origin zones we selected one quarter of the resident households, basing our sample on the electoral roll. These households were sent a questionnaire. This was devised mainly with one purpose: to indicate in which parts of Cambridge resident households of various zones made purchases of different kinds. The basic questions were similar to those in the sub-regional survey but the respondent was asked to identify his place of purchase in a list that formed part of the questionnaire, and to write down its code number. The list contained twenty-three well defined shopping areas inside Cambridge, and descriptions of seven other 'places', including 'London, 'travelling shop' and 'mail order'.

The principal results of this extensive survey are summarised in Tables 23.4 to 23.17. Here the answers have been converted into amounts of money, on the basis of assumptions about the pattern of household expenditure, similar to those described in the above account of sub-regional spending patterns. The first row of the first of these tables suggests that households resident in zone A (which lies immediately west of the historic centre) spent an average of 61p per week in the historic centre on furniture. They also spent 51p per week on other major household durables, and 26p per week on major items of clothing. This totals £1.38, which represents their total weekly spending on major items in the historic centre. It is 58.5% of their major spending anywhere.

It can be seen that the percentage of major spending done in the historic centre varies from under 25 (zone P) to almost 60 (zone A). Tables 23.5 and 23.6 present similar estimates for minor expenditure of a non-food kind and food expenditure. The percentage of minor expenditure done in the historic centre ranged from just under 40 (for zone S) to well over 80 (zone A). For food it ranged from under 10 (zones P, R, S, T and U) to about 40 (zones A and B).

Table 23.7 summarises our estimates of amounts spent in the three principal categories, and the last column expresses total spending from households of a given zone done in the historic centre (defined to extend from the Round Church to the Regal Cinema, and from Kings Parade to Hobson Street) as a percentage of their total spending in all places. This ranges from under 25% (zones R and S) to almost 60% (zone A).

Three other shopping places, being Regent Street between the Regal Cinema and the Catholic Church, Kings Street, and Bridge Street with Magdalene Street from the Round Church to Northampton Street, might by some people be deemed to be part of the effective central shopping area. We have called these places 'The Fringe', and Tables 23.8–23.11 present calculations for it. It can be seen from Table 23.11 that no zone spends as much as 8% of its total expenditure in this fringe area. The real importance of the separate calculations for it is that they enable us to speak

Table 23.4 Average amount spend (£) per week per household in the historic centre on the following major item groups, by zone

Zone code	Group containing furniture	Group containing referigerator/ cooker	Group containing suit	Total major expenditure	% of total household major expenditure
A	0.609	0.509	0.262	1.380	58.5
B	0.437	0.442	0.277	1.156	49.0
C	0.437	0.450	0.258	1.145	48.6
D	0.264	0.584	0.194	1.042	44.2
E	0.483	0.525	0.247	1.255	53.2
F	0.333	0.567	0.236	1.136	48.2
G	0.287	0.484	0.198	0.969	41.1
H	0.379	0.509	0.262	1.150	48.8
I	0.333	0.359	0.224	0.916	38.9
J	0.597	0.359	0.273	1.229	52.1
K	0.460	0.509	0.228	1.197	50.8
L	0.379	0.434	0.243	1.056	44.8
M	0.161	0.467	0.165	0.793	33.6
N	0.322	0.459	0.209	0.990	42.0
O	0.253	0.417	0.221	0.891	37.8
P	0.172	0.242	0.172	0.586	24.9
Q	0.448	0.400	0.262	1.110	47.1
R	0.149	0.325	0.180	0.654	27.7
S	0.195	0.317	0.172	0.684	29.0
T	0.207	0.534	0.198	0.939	39.8
U	0.310	0.492	0.232	1.034	43.9
V	0.414	0.425	0.247	1.086	46.1
W	0.379	0.559	0.209	1.147	48.7
X	0.253	0.467	0.209	0.929	39.4
Y	0.287	0.400	0.251	0.938	39.8
Z	0.574	0.467	0.273	1.314	55.7

Source: CSRS Shopping Survey, 1972.

Table 23.5 Average amount spent (£) per week per household in the historic centre on the following minor item groups, by zone

Zone code	Group containing skirt	Group containing underwear	Group containing children's wear	Group containing book	Group containing china	Group containing chemist's goods	Total minor expenditure	% of total household minor expenditure
A	0.310	0.592	0.335	0.474	0.206	1.077	2.994	86.7
B	0.303	0.592	0.351	0.458	0.193	0.726	2.623	76.0
C	0.295	0.579	0.296	0.443	0.161	0.701	2.475	71.7
D	0.221	0.451	0.215	0.391	0.131	0.351	1.760	51.0
E	0.273	0.532	0.273	0.453	0.166	0.438	2.135	61.8
F	0.277	0.505	0.218	0.402	0.136	0.563	2.101	60.9
G	0.217	0.451	0.207	0.376	0.122	0.476	1.849	53.6
H	0.251	0.505	0.238	0.422	0.141	0.476	2.033	58.9
I	0.247	0.505	0.250	0.427	0.146	0.613	2.188	63.4
J	0.284	0.565	0.316	0.464	0.198	0.814	2.641	76.5
K	0.273	0.505	0.230	0.402	0.149	0.576	2.135	61.8
L	0.284	0.505	0.261	0.474	0.159	0.676	2.359	68.3
M	0.146	0.316	0.203	0.366	0.124	0.313	1.468	42.5
N	0.202	0.404	0.222	0.397	0.117	0.463	1.805	52.3
O	0.217	0.464	0.250	0.381	0.134	0.588	2.034	58.9
P	0.198	0.397	0.257	0.391	0.124	0.250	1.617	46.8
Q	0.251	0.511	0.234	0.438	0.164	0.563	2.161	62.6
R	0.172	0.370	0.187	0.335	0.092	0.238	1.394	40.4
S	0.180	0.370	0.168	0.299	0.097	0.238	1.352	39.2
T	0.232	0.498	0.207	0.366	0.131	0.426	1.860	53.9
U	0.213	0.491	0.281	0.386	0.141	0.338	1.850	53.6
V	0.266	0.505	0.257	0.464	0.174	0.488	2.154	62.4
W	0.221	0.444	0.168	0.324	0.102	0.300	1.559	45.2
X	0.202	0.485	0.203	0.386	0.119	0.313	1.708	49.5
Y	0.221	0.471	0.199	0.412	0.126	0.488	1.917	55.5
Z	0.198	0.545	0.269	0.448	0.169	0.588	2.217	64.2

Source: CSRS Shopping Survey, 1972.

Table 23.6 Average amount spent (£) per week per household in the historic centre on the following food item groups, by zone.

Zone code	Group containing sugar	Group containing vegetables	Group containing butter	Group containing meat	Group containing bread	Total food expenditure	% of total household food expenditure
A	0.464	0.458	0.238	0.835	0.101	2.096	39.6
B	0.554	0.448	0.284	0.817	0.104	2.207	41.7
C	0.270	0.262	0.158	0.490	0.070	1.250	23.6
D	0.210	0.159	0.106	0.272	0.039	0.786	14.8
E	0.300	0.243	0.145	0.309	0.054	1.051	19.9
F	0.225	0.243	0.172	0.472	0.050	1.162	21.9
G	0.195	0.168	0.099	0.309	0.039	0.810	15.3
H	0.165	0.168	0.106	0.290	0.031	0.760	14.4
I	0.225	0.131	0.119	0.363	0.027	0.865	16.3
J	0.419	0.476	0.191	0.653	0.077	1.816	34.3
K	0.360	0.383	0.198	0.526	0.046	1.513	28.6
L	0.539	0.402	0.244	0.690	0.120	1.995	37.7
M	0.120	0.103	0.079	0.182	0.046	0.530	10.0
N	0.240	0.205	0.132	0.399	0.039	1.015	19.2
O	0.195	0.262	0.125	0.472	0.046	1.100	20.8
P	0.120	0.065	0.046	0.127	0.027	0.385	7.3
Q	0.285	0.224	0.112	0.254	0.050	0.925	17.5
R	0.090	0.112	0.053	0.163	0.019	0.437	8.3
S	0.105	0.093	0.066	0.182	0.023	0.469	8.9
T	0.030	0.093	0.079	0.254	0.046	0.502	9.5
U	0.135	0.093	0.086	0.200	0.012	0.526	9.9
V	0.285	0.243	0.172	0.363	0.039	1.102	20.8
W	0.150	0.103	0.066	0.236	0.019	0.574	10.8
X	0.135	0.112	0.092	0.200	0.027	0.566	10.7
Y	0.255	0.168	0.099	0.290	0.043	0.855	16.2
Z	0.270	0.234	0.152	0.327	0.043	1.026	19.4

Source: CSRS Shopping Survey, 1972.

Table 23.7 Average amount spent (£) per week per household in the historic centre by zone.

Zone code	Major items	Minor items	Food	Total expenditure	% of total household expenditure
A	1.380	2.994	2.096	6.470	58.3
B	1.156	2.623	2.207	5.986	53.9
C	1.145	2.475	1.250	4.870	43.9
D	1.042	1.760	0.786	3.588	32.3
E	1.255	2.135	1.051	4.441	40.0
F	1.136	2.101	1.162	4.399	39.6
G	0.969	1.849	0.810	3.628	32.7
H	1.150	2.033	0.760	3.943	35.5
I	0.916	2.188	0.865	3.969	35.7
J	1.229	2.641	1.816	5.686	51.2
K	1.197	2.135	1.513	4.845	43.6
L	1.056	2.359	1.995	5.410	48.7
M	0.793	1.468	0.530	2.791	25.1
N	0.990	1.805	1.015	3.810	34.3
O	0.891	2.034	1.100	4.025	36.3
P	0.586	1.617	0.385	2.588	23.3
Q	1.110	2.161	0.925	4.196	37.8
R	0.654	1.394	0.437	2.485	22.4
S	0.684	1.352	0.469	2.505	22.6
T	0.939	1.860	0.502	3.301	29.7
U	1.034	1.850	0.526	3.410	30.7
V	1.086	2.154	1.102	4.342	39.1
W	1.147	1.559	0.574	3.280	29.5
X	0.929	1.708	0.566	3.203	28.8
Y	0.938	1.917	0.855	3.710	33.4
Z	1.314	2.217	1.026	4.557	41.0

Source: CSRS Shopping Survey, 1972

Table 23.8 Average amount spent (£) per week per household in 'fringe' on the following major item groups by zone

Zone code	Group containing furniture	Group containing refrigerator/ cooker	Group containing suit	Total major expenditure	% of total household major expenditure
A	0.115	0.092	0.004	0.211	9.0
B	0.080	0.042	0.011	0.133	5.6
C	0.138	0.050	0.011	0.199	8.4
D	0.080	0.058	0.011	0.149	6.3
E	0.069	0.033	0.007	0.109	4.6
F	0.092	0.050	0.007	0.149	6.3
G	0.115	0.042	0.011	0.168	7.1
H	0.149	0.050	0.007	0.206	8.7
I	0.172	0.092	0.007	0.271	11.5
J	0.103	0.117	0.019	0.239	10.1
K	0.080	0.042	0.022	0.144	6.1
L	0.126	0.108	0.011	0.245	10.4
M	0.069	0.067	0.015	0.151	6.4
N	0.057	0.058	0.015	0.130	5.5
O	0.126	0	0.007	0.133	5.6
P	0.023	0.025	0.004	0.052	2.2
Q	0.046	0.058	0.015	0.119	5.0
R	0.080	0.033	0.007	0.120	5.1
S	0.092	0.033	0.019	0.144	6.1
T	0.149	0.042	0.011	0.202	8.6
U	0.080	0.058	0.004	0.142	6.0
V	0.080	0.050	0.011	0.141	6.0
W	0.149	0	0	0.149	6.3
X	0.138	0.017	0.007	0.162	6.9
Y	0.046	0.042	0.004	0.092	3.9
Z	0.069	0.033	0.011	0.113	4.8

Source: CSRS Shopping Survey, 1972.

Table 23.9 Average amount spent (£) per week per household in 'fringe' on the following minor item groups, by zone.

Zone	Group containing skirt	Group containing underwear	Group containing children's wear	Group containing book	Group containing china	Group containing chemist goods	Total minor expenditure	% of total household minor expenditure
A	0.011	0.020	0.008	0.005	0.007	0.038	0.089	2.6
B	0.011	0.007	0	0.005	0.010	0.125	0.158	4.6
C	0.007	0.020	0.031	0.010	0.012	0.075	0.155	4.5
D	0.007	0.027	0.023	0.005	0.007	0	0.069	2.0
E	0.011	0.013	0.016	0.010	0.010	0.013	0.073	2.1
F	0.019	0.027	0.027	0.010	0.012	0	0.095	2.8
G	0.022	0.020	0.035	0.010	0.012	0	0.099	2.9
H	0.019	0.013	0.039	0.005	0.027	0	0.103	3.0
I	0.011	0.027	0.016	0.005	0.015	0.013	0.087	2.5
J	0.011	0.027	0.016	0.010	0.017	0.025	0.106	3.1
K	0.022	0.027	0.027	0.010	0.015	0.013	0.114	3.3
L	0.015	0.013	0.031	0.005	0.017	0.025	0.106	3.1
M	0.007	0.007	0.031	0.010	0.010	0.013	0.078	2.3
N	0.015	0.020	0.012	0.005	0.007	0	0.059	1.7
O	0.015	0.013	0.008	0	0.002	0	0.038	1.1
P	0.022	0.013	0.008	0.021	0.015	0.025	0.104	3.0
Q	0.019	0.020	0.016	0	0.017	0.013	0.085	2.5
R	0.026	0.020	0.031	0.005	0.007	0.013	0.102	3.0
S	0.015	0.020	0.016	0.021	0.020	0.013	0.105	3.0
T	0.022	0.007	0.012	0.010	0.027	0	0.078	2.3
U	0.004	0.013	0.020	0.021	0.022	0.013	0.093	2.7
V	0.019	0.007	0.016	0.010	0.022	0.025	0.099	2.9
W	0.019	0.013	0.027	0	0.007	0	0.066	1.9
X	0.022	0.013	0.008	0.010	0.010	0.013	0.076	2.2
Y	0	0.007	0	0	0	0	0.007	0.2
Z	0.004	0.013	0.008	0.005	0.007	0.013	0.050	1.4

Source: CSRS Shopping Survey, 1972.

Table 23.10 Average amount spent (£) per week per household in the 'fringe' on the following food item groups, by zone

Zone code	Group containing sugar	Group containing vegetables	Group containing butter	Group containing meat	Group containing bread	Total food expenditure	% of total household food expenditure
A	0.090	0.028	0.046	0.054	0.012	0.230	4.3
B	0.075	0.028	0.020	0.054	0.027	0.204	3.9
C	0.075	0.019	0.033	0.073	0.008	0.208	3.9
D	0.045	0.009	0.013	0.018	0.004	0.089	1.7
E	0.030	0.009	0.013	0.054	0.004	0.110	2.1
F	0.060	0.019	0.026	0.018	0	0.123	2.3
G	0.060	0.009	0.033	0.036	0.004	0.142	2.7
H	0.015	0.009	0.013	0.036	0.004	0.077	1.5
I	0.045	0.065	0.026	0.054	0.004	0.194	3.7
J	0.240	0.047	0.086	0.091	0.043	0.507	9.6
K	0.090	0.019	0.046	0.091	0.008	0.254	4.8
L	0.165	0.047	0.053	0.109	0.039	0.413	7.8
M	0.060	0	0.026	0.018	0.008	0.112	2.1
N	0.090	0.028	0.059	0.091	0.008	0.276	5.2
O	0.090	0.019	0.033	0.054	0.004	0.200	3.8
P	0.075	0.019	0.013	0.054	0.012	0.173	3.3
Q	0.120	0.028	0.053	0.109	0.019	0.329	6.2
R	0.045	0.019	0.013	0.018	0.004	0.099	1.9
S	0.030	0.009	0.013	0.054	0.008	0.114	2.2
T	0.240	0.009	0.033	0.054	0.004	0.340	6.4
U	0.060	0.009	0.020	0.091	0.004	0.184	3.5
V	0.045	0.019	0.020	0.018	0.008	0.110	2.1
W	0.030	0.019	0.013	0.036	0.015	0.113	2.1
X	0.015	0.009	0.007	0.018	0.004	0.053	1.0
Y	0.030	0.028	0.020	0	0.012	0.090	1.7
Z	0.045	0.009	0.026	0.018	0.012	0.110	2.1

Source: CSRS Shopping Survey, 1972.

Table 23.11 Average amount spent (£) per week per household in the 'fringe' by zone

Zone code	Major items	Minor items	Food	Total expenditure	% of total household expenditure
A	0.211	0.089	0.230	0.530	4.8
B	0.133	0.158	0.204	0.495	4.5
C	0.199	0.155	0.208	0.562	5.1
D	0.149	0.069	0.089	0.307	2.8
E	0.109	0.073	0.110	0.292	2.6
F	0.149	0.095	0.123	0.367	3.3
G	0.168	0.099	0.142	0.409	3.7
H	0.206	0.103	0.077	0.386	3.5
I	0.271	0.087	0.194	0.552	5.0
J	0.239	0.106	0.507	0.852	7.7
K	0.144	0.114	0.254	0.512	4.6
L	0.245	0.106	0.413	0.764	6.9
M	0.151	0.078	0.112	0.341	3.1
N	0.130	0.059	0.276	0.465	4.2
O	0.133	0.038	0.200	0.371	3.3
P	0.052	0.104	0.173	0.329	3.0
Q	0.119	0.085	0.329	0.533	4.8
R	0.120	0.102	0.099	0.321	2.9
S	0.144	0.105	0.114	0.363	3.3
T	0.202	0.078	0.340	0.620	5.6
U	0.142	0.093	0.184	0.419	3.8
V	0.141	0.099	0.110	0.350	3.2
W	0.149	0.066	0.113	0.328	3.0
X	0.162	0.076	0.053	0.291	2.6
Y	0.092	0.007	0.090	0.189	1.7
Z	0.113	0.050	0.110	0.273	2.5

Source: CSRS Shopping Survey, 1972

Table 23.12 Average amount spent (£) per week per household in the Fitzroy Street/Burleigh Street area of the following major item groups, by zone

Zone code	Group containing furniture	Group containing referigerator/ cooker	Group containing suit	Total major expenditure	% of total household major expenditure
A	0.103	0.058	0.019	0.180	7.6
B	0.253	0.025	0.007	0.285	12.1
C	0.333	0.083	0.019	0.435	18.5
D	0.391	0.025	0.045	0.461	19.6
E	0.218	0.075	0.030	0.323	13.7
F	0.506	0.033	0.049	0.588	24.9
G	0.471	0.075	0.045	0.591	25.1
H	0.299	0.067	0.022	0.388	16.5
I	0.391	0.117	0.034	0.542	23.0
J	0.149	0.025	0.015	0.189	8.0
K	0.379	0	0.052	0.431	18.3
L	0.333	0.108	0.052	0.493	20.9
M	0.494	0.133	0.097	0.724	30.7
N	0.529	0.200	0.045	0.774	32.8
O	0.414	0.175	0.037	0.626	26.6
P	0.655	0.267	0.060	0.982	41.7
Q	0.172	0.033	0.007	0.212	9.0
R	0.253	0.067	0.045	0.365	15.5
S	0.264	0.058	0.034	0.356	15.1
T	0.253	0	0.019	0.272	11.5
U	0.310	0.058	0.037	0.405	17.2
V	0.310	0.108	0.015	0.433	18.4
W	0.264	0.067	0.030	0.361	15.3
X	0.345	0.092	0.015	0.452	19.2
Y	0.356	0.158	0.034	0.548	23.2
Z	0.299	0.067	0.015	0.381	16.2

Source: CSRS Shopping Survey, 1972.

of spending in the central area defined in two different ways.

(a) the historic centre, and
(b) the historic centre plus its fringe.

Tables 23.12–23.15 are concerned with the Fitzroy Burleigh area. Table 23.12 shows that while less than 8% of the expenditure on major items by residents of zone A went to the Fitzroy Burleigh area, for zones M and N it was over 30% and for zone P it was over 40%. Minor non-food spending was less attracted by Fitzroy Burleigh, but for a few zones it turned out to be an important food centre.

It is possible to summarise and to compare these results in various ways. We may look first at Table 23.16. This indicates, for example, that for households resident in zone A, 58.3% of total expenditure was done in the narrowly defined historic centre, 63.1% in the more widely defined centre, and 3.8% in Fitzroy Burleigh. This leaves 33% of their expenditure attributable to elsewhere in Cambridge, outside Cambridge, mail order or travelling shop.

It is very noticeable that zone L stands out as having a remarkably high proportion of its total spending in either the centre of Cambridge or Fitzroy-Burleigh. This is not surprising when one recognises that it is the zone that contains both the historic centre and Fitzroy-Burleigh. Its residents hardly need to look to anywhere other than the zone itself.

Table 23.17 compares spending in the narrowly defined historic centre with spending at Fitzroy-Burleigh, by main groupings. The first two columns express spending in that place on that commodity as a percentage of total spending on that grouping. The third column indicates by how many times spending in the historic centre exceeds that in Fitzroy-Burleigh. It can be seen that over all items, Cambridge households spent almost four times as much in the historic centre as in the Fitzroy-Burleigh area.

We now try to estimate the total amount of spending in Cambridge shops. For this purpose we can think of the spending as coming from

(a) City households
(b) Households elsewhere in the sub-region
(c) Tourists and visitors
(d) Persons in non-private households
(e) The university
(f) Businesses and institutions

The detail of our calculation has been put into Appendix 11 but our main approach and the results can be indicated here. Expenditure by city households can obviously be estimated on the basis of the household sample survey conducted in the city. Making allowance for changes in purchasing power

Table 23.13 Average amount spent (£) per week per household in the Fitzroy Street/Burleigh Street area on the following minor item groups, by zone

Zone code	Group containing skirt	Group containing underwear	Group containing children's wear	Group containing book	Group containing china	Group containing chemist's goods	Total minor expenditure	% of total household minor expenditure
A	0.015	0.013	0.020	0.005	0.012	0.038	0.103	3.0
B	0.004	0.013	0	0.005	0.007	0.013	0.042	1.2
C	0.011	0.020	0.023	0.005	0.022	0.038	0.119	3.4
D	0.049	0.087	0.043	0.015	0.045	0.025	0.264	7.6
E	0.019	0.047	0.039	0	0.020	0.050	0.175	5.1
F	0.022	0.054	0.047	0.010	0.037	0.038	0.208	6.0
G	0.056	0.054	0.031	0.010	0.030	0.075	0.256	7.4
H	0.034	0.087	0.027	0.010	0.030	0.125	0.313	9.1
I	0.049	0.061	0.020	0.015	0.035	0.088	0.268	7.8
J	0.015	0.027	0.016	0	0.007	0.013	0.078	2.3
K	0.030	0.040	0.059	0.010	0.012	0.050	0.201	5.8
L	0.056	0.101	0.070	0.026	0.057	0.476	0.786	22.8
M	0.131	0.215	0.078	0.057	0.074	0.476	1.031	29.9
N	0.060	0.108	0.059	0.041	0.055	0.188	0.511	14.8
O	0.060	0.081	0.027	0.026	0.057	0.188	0.439	12.7
P	0.071	0.141	0.055	0.046	0.060	0.451	0.824	23.9
Q	0.019	0.027	0.016	0	0.012	0.013	0.087	2.5
R	0.041	0.087	0.051	0.015	0.020	0.063	0.277	8.0
S	0.034	0.054	0.016	0.021	0.025	0.025	0.175	5.1
T	0.015	0.047	0.027	0.010	0.012	0.013	0.124	3.6
U	0.030	0.054	0.027	0.021	0.020	0.050	0.202	5.9
V	0.007	0.034	0.020	0.010	0.015	0.025	0.111	3.2
W	0.052	0.061	0.027	0.015	0.015	0.025	0.195	5.6
X	0.019	0.034	0.031	0.005	0.037	0.025	0.151	4.4
Y	0.030	0.054	0.043	0	0.040	0.063	0.230	6.7
Z	0.011	0.034	0.020	0	0.017	0.038	0.120	3.5

Source: CSRS Shopping Survey, 1972.

Table 23.14 Average amount spent (£) per week per household in the Fitzroy Street/Burleigh Street area on the following food item groups, by zone

Zone code	Group containing sugar	Group containing vegetables	Group containing butter	Group containing meat	Group containing bread	Total food expenditure	% of total household food expenditure
A	0.045	0.028	0.013	0.054	0.004	0.144	2.7
B	0.030	0.009	0.013	0.036	0.004	0.092	1.7
C	0.015	0.028	0.007	0.036	0.008	0.094	1.8
D	0.030	0.009	0.020	0.073	0	0.132	2.5
E	0.090	0.037	0.033	0.091	0.012	0.263	5.0
F	0.075	0.037	0.046	0.109	0.004	0.271	5.1
G	0.120	0.056	0.059	0.163	0.012	0.410	7.7
H	0.045	0.019	0.040	0.073	0.015	0.192	3.6
I	0.075	0.028	0.053	0.127	0.008	0.291	5.5
J	0	0.009	0.007	0.018	0.004	0.038	0.7
K	0.045	0.019	0.020	0.073	0.012	0.169	3.2
L	0.554	0.355	0.257	0.726	0.163	2.055	38.8
M	0.449	0.243	0.218	0.545	0.085	1.540	29.1
N	0.135	0.065	0.053	0.163	0.027	0.443	8.4
O	0.195	0.065	0.086	0.236	0.031	0.613	11.6
P	0.434	0.290	0.191	0.545	0.108	1.568	29.6
Q	0.030	0.028	0.013	0.054	0.008	0.133	2.5
R	0.090	0.047	0.040	0.091	0.012	0.280	5.3
S	0.045	0.019	0.013	0.091	0.008	0.176	3.3
T	0.030	0.009	0.020	0	0.004	0.063	1.2
U	0.060	0.028	0.033	0.109	0.008	0.238	4.5
V	0.015	0.009	0	0.018	0.012	0.054	1.0
W	0	0	0.007	0.036	0.004	0.047	0.9
X	0.015	0.019	0.013	0.091	0	0.138	2.6
Y	0	0.009	0	0.018	0.004	0.031	0.6
Z	0.030	0.028	0.013	0.018	0.012	0.101	1.9

Source: CSRS Shopping Survey, 1972

Table 23.15 Average amount spent (£) per week per household in the Fitzroy Street/Burleigh Street area, by zone

Zone code	Major items	Minor items	Food	Total expenditure	% of total household expenditure
A	0.180	0.103	0.144	0.427	3.8
B	0.285	0.042	0.092	0.419	3.8
C	0.435	0.119	0.094	0.648	5.8
D	0.461	0.264	0.132	0.857	7.7
E	0.323	0.175	0.263	0.761	6.9
F	0.588	0.208	0.271	1.067	9.6
G	0.591	0.256	0.410	1.257	11.3
H	0.388	0.313	0.192	0.893	8.0
I	0.542	0.268	0.291	1.101	9.9
J	0.189	0.078	0.038	0.305	2.7
K	0.431	0.201	0.169	0.801	7.2
L	0.493	0.786	2.055	3.334	30.0
M	0.724	1.031	1.540	3.295	29.7
N	0.774	0.511	0.443	1.728	15.6
O	0.626	0.439	0.613	1.678	15.1
P	0.982	0.824	1.568	3.374	30.4
Q	0.212	0.087	0.133	0.432	3.9
R	0.365	0.277	0.280	0.922	8.3
S	0.356	0.175	0.176	0.707	6.4
T	0.272	0.124	0.063	0.459	4.1
U	0.405	0.202	0.238	0.845	7.6
V	0.433	0.111	0.054	0.598	5.4
W	0.361	0.195	0.047	0.603	5.4
X	0.452	0.151	0.138	0.741	6.7
Y	0.548	0.230	0.031	0.809	7.3
Z	0.381	0.120	0.101	0.602	5.4

Source: CSRS Shopping Survey, 1972.

Table 23.16 Summary of percentages of total expenditure from each zone to central shopping areas

Zone Code	% to Historic (1)	% to Fringe (2)	% to Fitzroy Street/Burleigh Street (3)	(1) + (2)	(1) + (2) + (3)
A	58.3	4.8	3.8	63.1	66.9
B	53.9	4.5	3.8	58.4	62.2
C	43.9	5.1	5.8	49.0	54.8
D	32.3	2.8	7.7	35.1	42.8
E	40.0	2.6	6.9	42.6	49.5
F	39.6	3.3	9.6	42.9	52.5
G	32.7	3.7	11.3	36.4	47.7
H	35.5	3.5	8.0	39.0	47.0
I	35.7	5.0	9.9	40.7	50.6
J	51.2	7.7	2.7	58.9	61.6
K	43.6	4.6	7.2	48.2	55.4
L	48.7	6.9	30.0	55.6	85.6
M	25.1	3.1	29.7	28.2	57.9
N	34.3	4.2	15.6	38.5	54.1
O	36.3	3.3	15.1	39.6	54.7
P	23.3	3.0	30.4	26.3	56.7
Q	37.8	4.8	3.9	42.6	46.5
R	22.4	2.9	8.3	25.3	33.6
S	22.6	3.3	6.4	25.9	32.3
T	29.7	5.6	4.1	35.3	39.4
U	30.7	3.8	7.6	34.5	42.1
V	39.1	3.2	5.4	42.3	47.7
W	29.5	3.0	5.4	32.5	37.9
X	28.8	2.6	6.7	31.4	38.1
Y	33.4	1.7	7.3	35.1	42.4
Z	41.0	2.5	5.4	43.5	48.9

Source: CSRS Shopping Survey, 1972

Table 23.17 Comparison of spending in the historic centre with spending in Fitzroy Burleigh by residents of private households in the city of Cambridge

Expenditure grouping	% of total spent in Historic Centre	% of total spent in Fitzroy-Burleigh	Ration of the two percentages
Major	44.3	19.1	2.3:1
Minor	59.1	7.9	7.5:1
Food	19.9	7.1	2.8:1
Total	37.3	9.9	3.8:1

Source: CSRS Shopping Survey, 1972

between 1971 and 1972, we put the total expenditure in city shops by private households resident in the city at £21.1 million.

We have already estimated tourist expenditure to be about £10 million.

Enquiries at the University and other sources suggest that total spending in shops by University and College Authorities and by students approximates to £3 million.

Consideration of relative numbers, and of such meagre information as we have, has led us to guess that spending in shops by persons in non-private households, by various institutions and by businesses comes to about £4 million.

All of this adds up to £38.1 million. We must now add to this an estimate of spending by households resident in the sub-region but living outside Cambridge. We obtained good information for households in 22 settlements, and this was used as the basis of a model that served two purposes. One was simply to estimate the volume of spending in Cambridge arising from households in other places, The other was to predict how sub-regional spending in Cambridge would change under a variety of assumptions about the future. For this purpose we used a new model based on one devised for a study undertaken two years ago by Mr. Bridges and myself of shopping requirements in Wellingborough. It is described in Appendix 12. I must say at once that I am not completely satisfied with it, but I do feel that while some of its detailed estimates – such as spending on major items in Huntingdon by the residents of some village to its south-east – have to be viewed with reserve, its main estimate, of spending in Cambridge, is probably fairly reliable. Throughout the exercise we were very concerned with devising a model that fitted the facts, rather than with feeding facts into some preconceived model. The estimate emerging from this model is that in 1971 sub-regional households spent £16.8 million in Cambridge shops.

Thus we reach a total of £54.9 million as an estimate of spending in Cambridge shops in 1971. We may note that by using totally different methods Gower Economic Publications have estimated 1972 expenditure in Cambridge at £57.4 million. This estimate was, in fact, a prediction made in 1971 with no information beyond 1970. One assumption on which it rests is that in both the food and non-food sectors prices would increase by 10% between 1970 and 1972. This means that, with hindsight, the authors would probably increase their estimate for 1972. This would make reconciliation with our own estimate for 1971 easier. It seems that neither estimate is far from the mark.

Overall, then, we may say that in 1971 the shops of Cambridge had takings of about £55 million. We have allocated £43 million to the central area (which includes Fitzroy Street/Burleigh Street) and about £12 million to shops elsewhere in Cambridge. Our detailed surveys showed that very few people from outside the city shopped in the suburbs; and almost the whole of this £12 million arises from expenditure by local households.

We must, however, emphasise one important point. Shopping is an activity that engenders traffic. But it also depends critically on location-based profits, in a way that few other activities do. If there were no 'other employment' in the historic centre, there would scarcely be a reduction in pressures on it. But if there were no shops it would be almost completely freed of commercial pressures related to sub-regional population. That is why a study of the role of Cambridge has to rely so much on a study of its shopping.

Shortly after this Sub-Regional Study began the sponsoring authorities directed my attention to certain important questions that we should try to answer. These are set out

fully in Appendix 14, but the first two may usefully be quoted here. They were:

"How far is there a conflict between a policy of preserving the historic character of Cambridge ..... and a policy of allowing growth there? If it exists, how might it be resolved?"

and

"In both (sic) a national, regional and a sub-regional context what should the future functions of Cambridge itself be as regards industry, the provision of office services, shopping, and as a centre for regional amenities and services?"

In later chapters we shall combine the evidence assembled in this present chapter with information presented elsewhere in this Report in an attempt to answer these important questions.

Chapter 24

Car-Parking

One of the main complaints about Cambridge, as it is about so many towns, is that car-parking is difficult. Another complaint is that so many parked cars impede access to buildings and visibility of moving traffic and spoil what otherwise would be pleasant views.

In an attempt to be better informed on this subject we conducted some surveys in and around the centre of Cambridge. Our concern was very much with parking in the central area, and our method of survey reflected this.

The essentials of the survey method are simply stated. With the help of attendants (where they existed) we handed questionnaires to drivers of selected cars entering car parks (Figure 24.1). The questions were brief and accompanied by an envelope for posting back to us. We also selected certain streets (Figure 24.2) and left questionnaires on the windscreens of certain cars that were parked in them. We should, however, spell out this part of our procedure in a little more detail.

We wanted to be able to observe the movement of parked cars, and decided to do so by assigning circuits to several surveyors who were instructed to walk along them, completing the circuit in an hour. People worked in teams in a way that meant that each surveyor walked for two hours and rested for one. On the basis of a pilot investigation it was decided to sample the parked cars by leaving forms only on those vehicles whose registration number ended in one of a few specified digits. The first survey, conducted on Friday July 7th, 1972, was carried out by placing forms on the windscreens of cars whose numbers ended in 3 or 4. On the following day we repeated the exercise, but this time were concerned only with cars whose numbers ended in 7 or 8. Unfortunately it rained very heavily on the Saturday. Streets became somewhat deserted, questionnaire forms became sodden, surveyors got wet and in mid-afternoon the survey was dissolved. On both days vehicle counts were unreliable due to a failure to understand intructions.

On Friday October 20th, and Saturday October 21st the surveys were repeated, this time in fine if blustery weather. In order to secure a higher return we increased the sample size, using terminal digits of 0, 1, 2 on Friday and 5, 6, 9 on Saturday. Thus no car was the subject of enquiry more than once. There were also slight changes in the circuits, partly in light of past experience but also because the surveyors were required to call at car-parks in their circuit, and

Figure 24.1 Car parks in central Cambridge

Key

A	**Lion Yard**	**E**	**Queen Anne Terrace**
B	**Park Street**	**F**	**Adam and Eve Street**
C	**New Square**	**G**	**Gold Street**
D	**Prospect Row**	**H**	**Saxon Street**

Scale in miles

0 ¼ ½

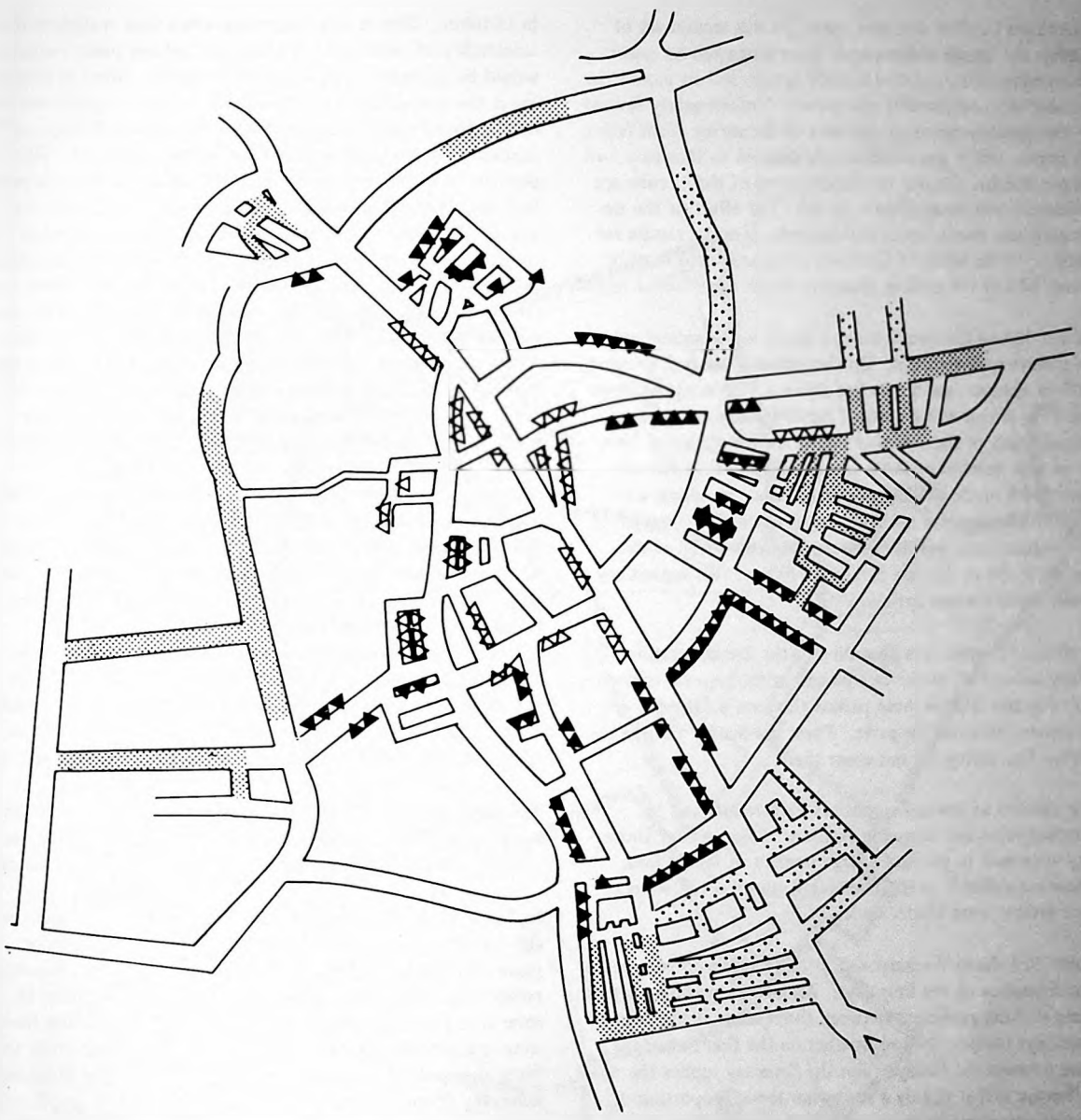


Figure 24.2 Street parking facilities in central Cambridge

Key

- Short term meters
- Long term meters
- Non-metered streets surveyed on both surveys
- Non-metered streets surveyed on first survey only

Scale in miles

0 ¼ ½

Lion Yard Car-Park was now open. In this second set of surveys the circuit walkers were again instructed to count the number of cars parked in each circuit, and to record the number of questionnaires distributed. Unfortunately several of the specially recruited members of the survey team failed to appear, and it was consequently decided to eliminate two of the circuits. (In our tabulations some of the circuits are combined into zones (Figure 24.3a). The effect of the deficiency just mentioned is that on both days the results for zone G, to the south of the historic centre, relate to only about 20% of the parking spaces to which they should relate.)

About 40% of the questionnaries issued in the second set of surveys were returned. On this occasion we had sampled 30% of the cars, and so we had about a 12% sample. However, our circuit walkers would certainly have completely missed many of the cars that stayed for less than one hour. If we take account of these, our replies probably fall to about 10% of the number of parked cars. No check was kept on the numbers of forms issued in the first survey. If the response rate was the same we probably received data for about 7% of the cars parked on Friday. We cannot say much about the wet Saturday.

It should be noted that according to the Transportation Study about 44% of the cars parked in the historic centre on a Friday and 28% of those parked there on a Saturday are in private, off-street car-parks. These are mainly College car-parks. Our survey did not cover them.

The answers on the questionnaires were transferred to punched cards and computer facilities at Manchester University were used to produce a large number of tabulations. These are available to the Planning Authority, but we may here present some briefer tables.

Table 24.1 shows the purposes of the drivers who completed questionnaires on the four days. An interesting point is that there is closer agreement between the results for the two Saturdays (despite the bad weather on the first Saturday) than between the Fridays. For the Saturday replies the main difference is that in July a somewhat lower proportion of drivers were there to shop, and a higher proportion to do something other than shop, work or attend to business, than in October. This is not surprising when one considers the seasonality of visitors to Cambridge, whose main purpose would be included in this 'other' category. What is surprising is the proportion of respondents whose purpose was work on the first Friday compared with the second Friday, and the similarity of the proportions with 'other' purposes. This can perhaps be attributed partly to Lion Yard. If this car-park had the effect of enticing more shoppers to come by car, and to park there or in spaces vacated by other users of this car-park, then one would expect the figures to show a higher proportion of shoppers and lower proportions of other users. Our survey shows that in fact on Friday October 10th over 60% of the users of this car-park were shoppers and only 10% were workers. However, when we take the actual numbers into account and make the necessary adjustments for the Lion Yard effect we can in fact explain only a very small part of this difference between the results on the two days. It could, however, be due in part to an under-recording of vehicles parked in zone G on the second Friday. This is a non-metered area of street parking close to the historic centre. On Friday July 7th, 52 of the 122 respondents whose cars were parked there were in Cambridge to work, while only 13 were there to shop. When one considers that on that day there were 683 respondents altogether, of whom only 169 had work as a purpose, and 249 were shopping, it is clear that the under-recording in this zone on the second Friday certainly distorts the results. If we remove zone G from our totals on both Fridays we eliminate about half of the observed difference between days.

This examination of Table 24.1 suggests that probably, in some respects, the surveys for the first Friday and the second Saturday are more reliable than those on the other days.

In Table 24.2 we summarise the purposes of passengers in cars whose drivers responded to our enquiry. Since the place of parking is likely to reflect the purpose of the driver rather than of the passenger, the under-representation in zone G is possibly less important here. On the other hand, some people who come to work by car come too early to bring shoppers as passengers but not too early to bring other workers. It may therefore be partly due to this under-registration that, even for passengers, fewer workers were recorded on the second Friday than on the first.

Table 24.1 Purpose of visit of driver

Purpose	Day of Survey							
	Friday 7.7.72		Saturday 8.7.72		Friday 20.10.72		Saturday 21.10.72	
	No.	%	No.	%	No.	%	No.	%
Shopping	249	(36.5)	388	(68.9)	415	(46.9)	1008	(74.1)
Work	169	(24.7)	29	(5.2)	148	(16.7)	60	(4.4)
Business	89	(13.0)	15	(2.7)	109	(12.3)	35	(2.6)
Other	176	(25.8)	131	(23.3)	213	(24.1)	258	(19.0)
Total	683	(100)	563	(100)	885	(100)	1,361	(100)

Note: The percentage columns are subject to rounding error.

Source: CSRS Car Parking Survey.

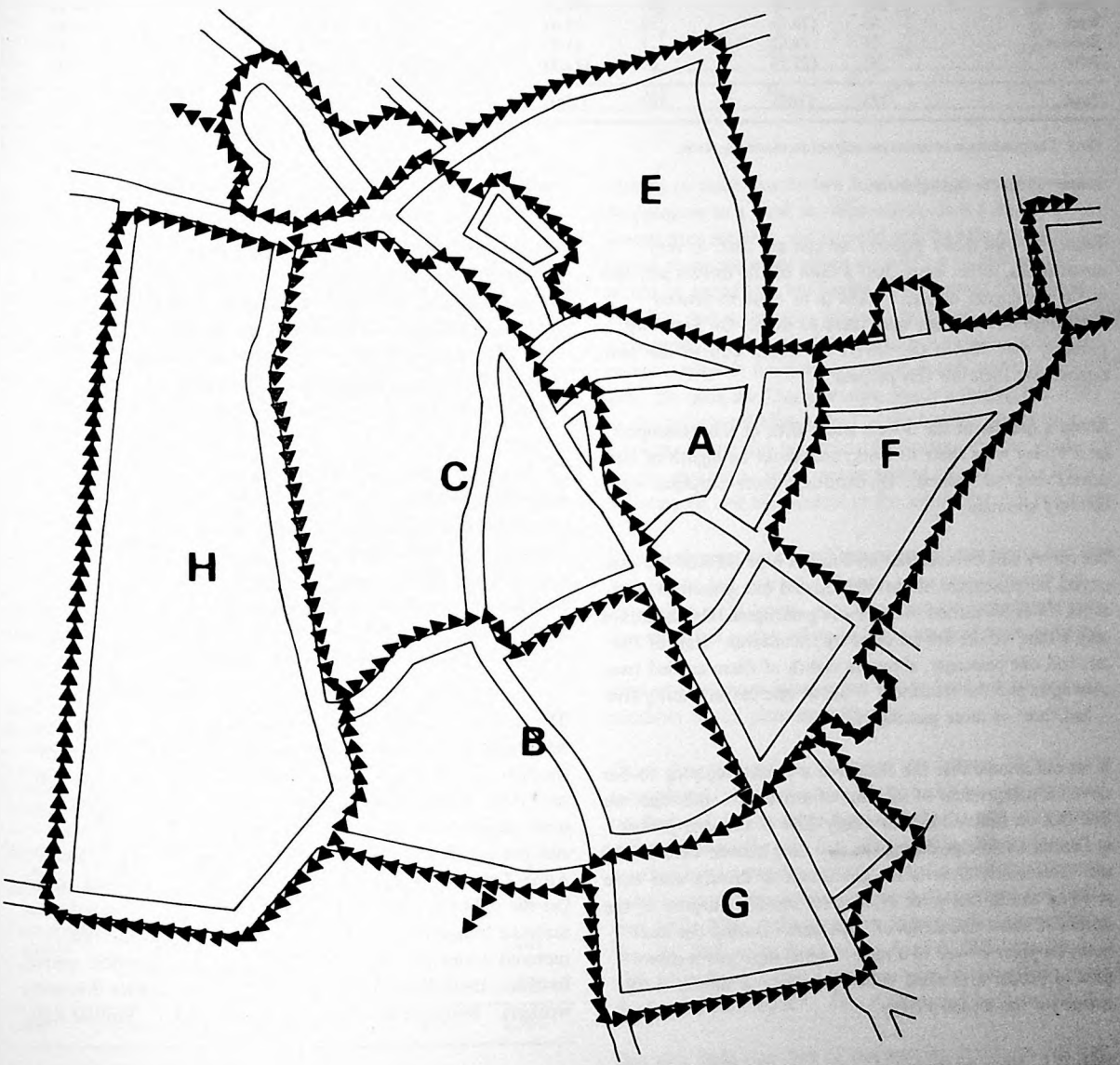


Figure 24.3 (a) Cambridge car-parking survey zones

Table 24.2 Purpose of visit of all passengers

Purpose	Day of Survey							
	Friday 7.7.72		Saturday 8.7.72		Friday 20.10.72		Saturday 21.10.72	
	No.	%	No.	%	No.	%	No.	%
Shopping	160	(49.5)	387	(80.3)	231	(54.7)	987	(79.9)
Work	65	(20.1)	21	(4.4)	58	(13.7)	22	(1.8)
Business	15	(4.6)	7	(1.5)	13	(3.1)	17	(1.4)
Other	83	(25.7)	67	(13.9)	120	(28.4)	210	(17.0)
Total	323	(100)	482	(100)	422	(100)	1,236	(100)

Note: The percentage columns are subject to rounding error.

Source: CSRS Car Parking Survey.

Taking the two tables together we can say that, in very round terms, rather more than a third of the drivers and half of the passengers, of cars, parked in or close to central Cambridge on a Friday, were there to shop. On Saturday probably over 70% of the drivers and about 80% of the passengers were there for this purpose.

About a quarter of the drivers and a fifth of the passengers on a Friday were there to work; and about an eighth of the drivers were 'on business'. On Saturdays these purposes were not very common.

The survey also showed that on Fridays over 60% of the cars carried no passengers, about 30% carried one passenger, and about 7% or 8% carried two or more passengers. On Saturdays only a third of the drivers came by themselves. Half of the cars had one passenger, about an eighth of them carried two passengers and the remainder – about one car in twenty-five – had three or more passengers.

If we can assume that the chance of a person replying to our survey is independent of his time of arrival in Cambridge, we find that on Friday July 7th nearly 22% of the cars parked in Central Cambridge during the day time arrived before 9.00 am. This is very close to the percentage of drivers who were at work, and in fact work or business was the purpose of the drivers of about five-sixths of these cars. During the next hour, shoppers arrived in a rush. Lunch-time saw a minor peak of people with some 'other' purpose. A similar story is true for the second Friday.

On the second Saturday – for we cannot rely on this information on the first Saturday – it was of course the pattern of shopping that dictated the time of arrival, although it may be noted that about 8% of the shoppers arrived before 9.00 am. Almost a third of them had parked their cars before 10.00 am. Again a minor peak occurs at lunch-time.

On both Saturdays about 80%, or more, of the cars parked in official car-parks had been driven by intending shoppers. On October 21st almost a quarter of shoppers' cars were parked in the new car-park at Lion Yard. It is tempting to try to divine where these cars might otherwise have been parked, but weather conditions between the two days were so different, and the survey in the summer consequently so unreliable, that it would not be a very fruitful exercise.

The pattern of parking on Fridays shows very clearly the reluctance of workers to use meters and the eagerness of shoppers to park close to the shops. It is significant that on Friday July 7th 58% of all cars driven by shoppers were parked in zone A – containing long-term meters and the car-parks of Park Street, New Square and Queen Anne Terrace. Another 16% were in other metered zones. On the other hand, under 18% of the workers parted in metered zones. The most popular areas were the non-metered zones to the south and east of the historic centre. Between them these took nearly 70% of the cars driven by workers. Some detail appears in Table 24.3. Similar data

Table 24.3 Where car was parked by purpose of driver for Friday 7.7.72

Purpose of driver	Long-term meter zone to east of historic centre A	Long-term meter zone to south of historic centre B	Short-term meter zone. C	Non-metered zone to north of historic centre E	Non-metered zone to east of historic centre F	Non-metered zone to south of historic centre G	Non-metered zone to west of historic centre H	Total
Shopping	145	18	23	2	36	16	9	249
Work	25	3	2	5	51	67	16	169
Business	39	8	9	4	6	20	3	89
Other	59	23	8	5	24	48	9	176
Total	268	52	42	16	117	151	37	683

Source: CSRS Car Parking Survey.

Table 24.4 Where the car was parked by purpose of driver for Saturday 21.10.72

Purpose of driver	Long-term meter zone to east of historic centre	Long-term meter zone to south of historic centre	Short-term meter zone	Non-metered zone to north of historic centre	Non-metered zone to east of historic centre	Non-metered zone to south of historic centre	Non-metered zone to west of historic centre	Total
	A	B	C	E	F	G	H	
Shopping	462	46	297	26	118	21	38	1,008
Work	6	0	5	6	18	7	18	60
Business	15	3	9	1	4	2	1	35
Other	76	15	44	19	28	26	50	258
Total	559	64	355	52	168	56	107	1,361

Source: CSRS Car Parking Survey.

for Saturday October 21st appears in Table 24.4. A further variation, with streets separated from car-parks, appear in Tables 24.5 and 24.6.

Table 24.5 Where vehicle was parked by purpose of driver for Friday 7.7.72

Type of Parking Facility	Purpose of driver				Total
	Shopping	Work	Business	Other	
Short-term meters	27	2	10	11	50
Long-term meters	75	8	21	51	155
Non-metered streets	32	90	27	68	217
Car parks	115	69	31	46	261
Total	249	169	89	176	683

Source: CSRS Car Parking Survey.

Table 24.6 Where vehicle was parked by purpose of driver for Saturday 21.10.72

Type of Parking Facility	Purpose of driver				Total
	Shopping	Work	Business	Other	
Short-term meters	66	2	0	15	83
Lon-term meters	183	3	9	47	242
Non-metered streets	111	37	6	107	261
Car parks	648	18	20	89	775
Total	1,008	60	35	258	1,361

Source: CSRS Car Parking Survey.

We obtained data about the duration of stay at parking meters. That for Friday July 7th suggests that two-thirds of the people staying at short-term meters did so for less than ten minutes. This may be right, but it is at complete variance with the results for the other Friday and the two Saturdays. These three other days show a phenomenon that has also been observed in Manchester: a marked tendency to stay for between twenty and thirty minutes or to stay for almost the whole of the hour for which payment has been made. In round terms about 30% of the short-term meter parkers stayed for less than half an hour. These were people wishing to make one or two brief calls such as for specific shopping or to a bank or other office. It is a legitimate central area activity, and it could well be encouraged by having more meters at which stays of up to half an hour would be permitted, but longer stays severely discouraged. The fact that substantial fractions of people parking at longer-term meters were there for *under forty minutes*, and by no means negligible fractions for *under twenty minutes*, supports this. So does the Transportation Study's finding that 29% of the private vehicles parked in the historic centre on a weekday stayed for less than 15 minutes. On the whole people parking at these meters tended to stay either for between 40 and 60 minutes or for almost the full two hours.

Those using car-parks on Fridays usually stayed for less than two hours: but around 15% may be expected to stay for more than eight hours. On Saturdays the long stay is less common, but a stay of up to three hours is more common.

A great deal more information of this kind can be made available to the planning authority.

Other data concern the origins of the drivers. We have it in some detail. Three-quarters of the cars driven by shoppers on Friday July 7th came from outside the city. If one draws a band around the city five miles outside its boundary, another band ten miles outside it, and a third band twenty miles outside, thus embracing the market towns, one finds that while 25% of the shopping drivers came from within the city, 20% came from within Band 1, 21% from Band 2, 18% from Band 3, and 15% from even further afield, beyond the twenty mile band*. This is illustrated in Figure 24.3b.

One also finds that 34% of the working drivers on that day came from within the city, 17% from Band 1, 19% from Band 2, 35% from Band 3 and 6% from more than twenty miles away.

On Saturday July 8th, there was a similar story but now people living in Band 3, between 10 and 20 miles away, were more common. In fact, there were more cars parked by shoppers from this Band than there were by shoppers

* The private household population lying within Band 1, was about 30,000. Between this boundary and the ten mile boundary – i.e., in Band 2, lived 40,000 people. Band 3 contains just over 200,000 people.

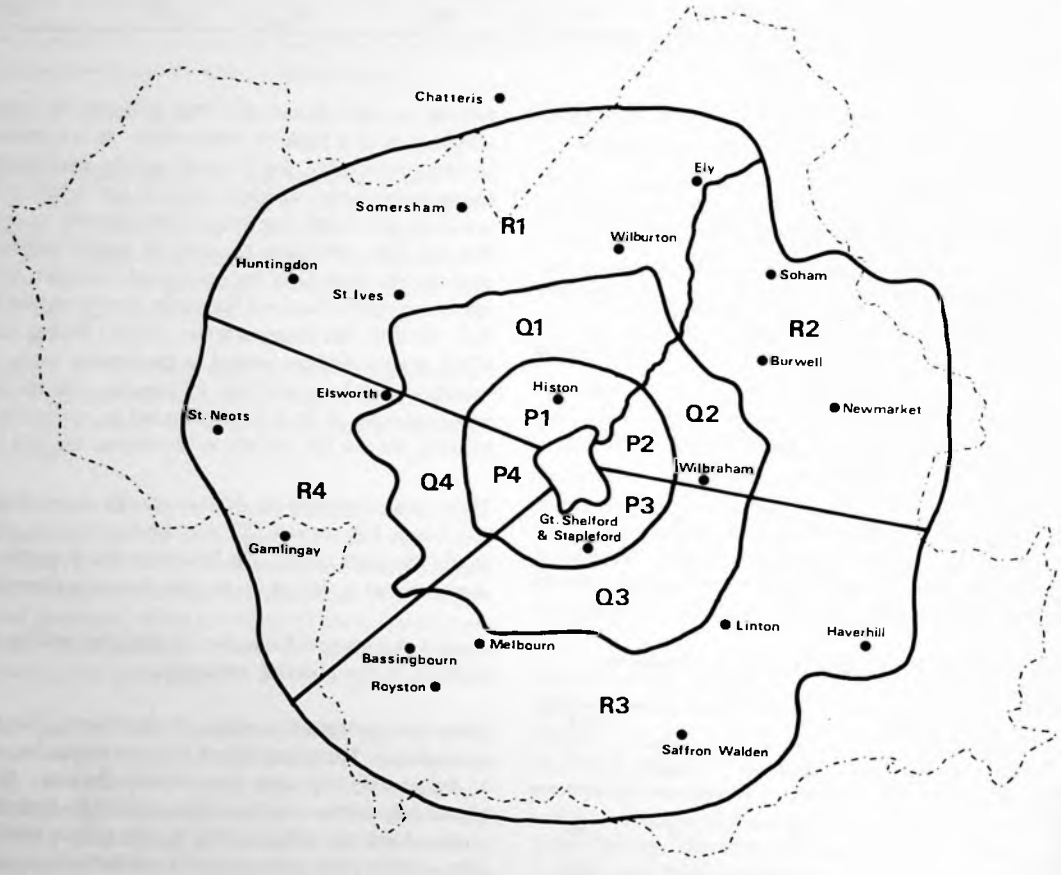


Figure 24.3 (b) Parking survey zones

resident in the City. On that day 23% of the shoppers cars were driven by city residents, 18% by people from Band 1, 18% by people from Band 2, 25% from Band 3, and 15% by people from more than twenty miles away.

We saw in our street survey of shoppers, summarised in Chapter 23, that approximately a half of central area shoppers come from outside the city. We also saw that of the 235 shoppers in the historic centre who had come by car – not necessarily as driver – 18% (43 shoppers) lived in the city, while 65% lived in the rest of the area covered by our LP model zones, and 17% lived further out than this. These results appear to be compatible with those derived from the parking survey.

Moreover, we have to observe that of the 48% of the shoppers in the historic centre who came from outside the city, 88% arrived by car. In other words, over 40% of the historic centre shoppers were car-borne shoppers from outside the city. They constituted over 80% of the total car-parking shoppers. It is these people whom parking regulations and facilities affect. The interdependence of parking and the role of central Cambridge as a sub-regional shopping centre is very evident.

So is the need to have a sub-regional shop centre to which car-access is easy, and where it will not be environmentally objectionable. In these terms, the enlargement of the centre by the 'safety-valve' of Fitzroy-Burleigh will not succeed, except, perhaps, for a very short time.

Chapter 25

Transportation and traffic

It was made clear to us at the outset of the study that, in view of the recent date of the Cambridge Transportation Study, which covered an area larger than the city but smaller than the Sub-Region, we would not be expected to undertake our own survey of traffic.

Earlier chapters have commented on certain aspects of communications in the areas around the market towns, and we have just looked at some characteristics of car-parking in central Cambridge. There is little point in regurgitating here the factual data contained in the report of the Transportation Study, but it will be necessary for us shortly to comment on relationships between its forecasts and recommendations and those made in this report.

In looking at the areas around the market towns we have remarked upon the inadequacy of rural bus services. This is part of a national problem. Generally, rural public transport is bad. In 1971 ten million people lived in areas served by country buses, and over forty per cent of these had no other means of transport.

Yet what we have to remember is that despite this, our villages are growing. In many cases they are doing so because it is easier to get land for building additional houses in rural areas than it is in or close to Cambridge. To that extent, there is for some people little option. If they are going to live in the sub-region and not as far out as the market towns, a house in a village is the only real solution: and if they do live in a village they usually feel that they need a car. Others, already with cars, live in the villages out of choice.

One can never have universal car ownership. Some will always be too young, too old, too poor, or physically unable to drive. These are the people who form the hard core of the obvious victims of poor rural services. Other, less obvious victims, are those who have been more or less forced to buy and to run a car, and those who suffer from congestion on the roads and car-parking problems in the towns. While it is to a large extent the high level of car ownership that has brought about the decline in country bus services it is also to some extent true that better country bus services might well help to reduce the level of car ownership.

There is little need to analyse the economics of country bus services. Figures 25.1 and 25.2 show the profitable and the unprofitable services operated in the sub-region by the

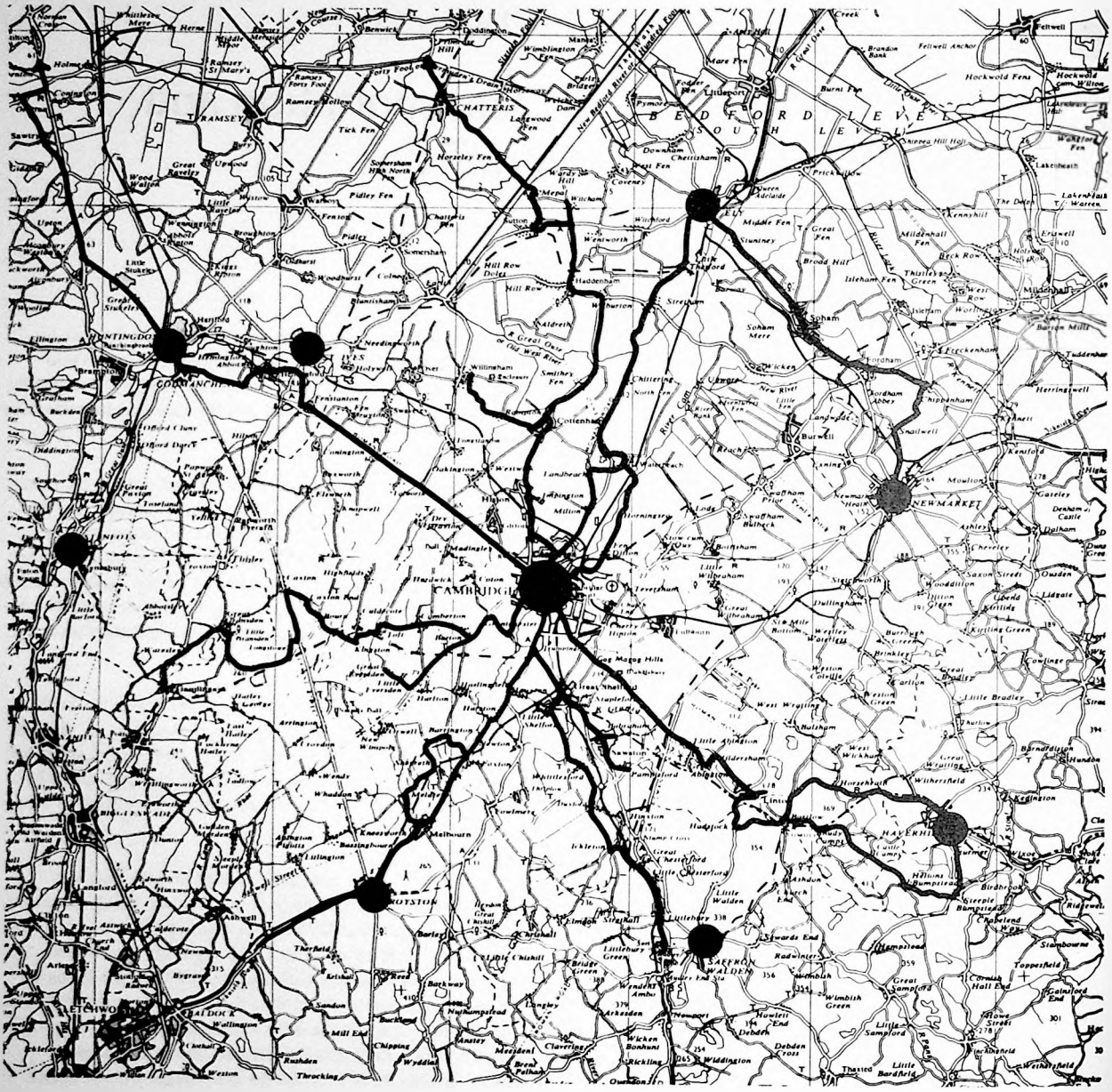


Figure 25.1 Bus services covering costs

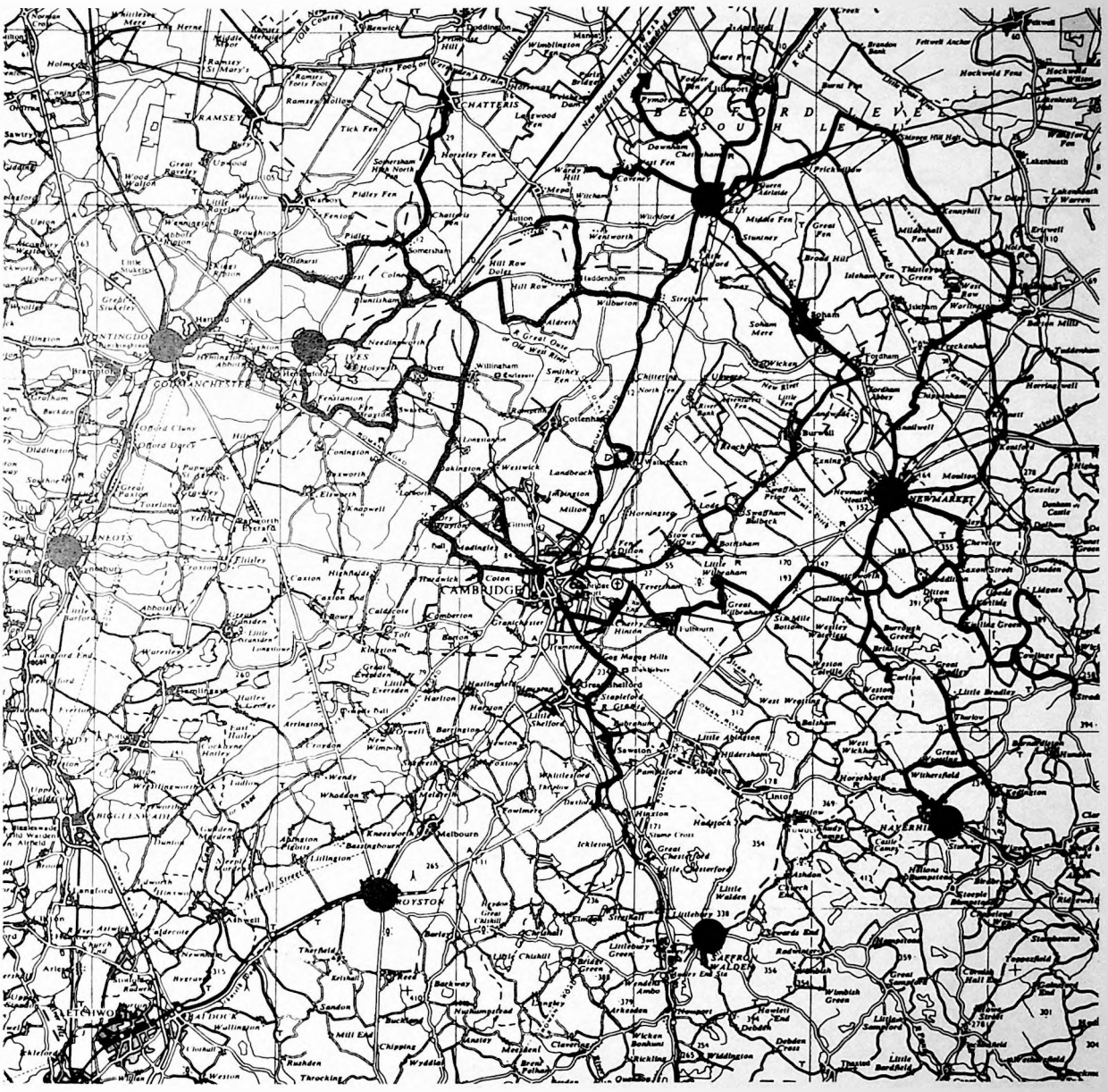


Figure 25.2 Bus services not covering costs

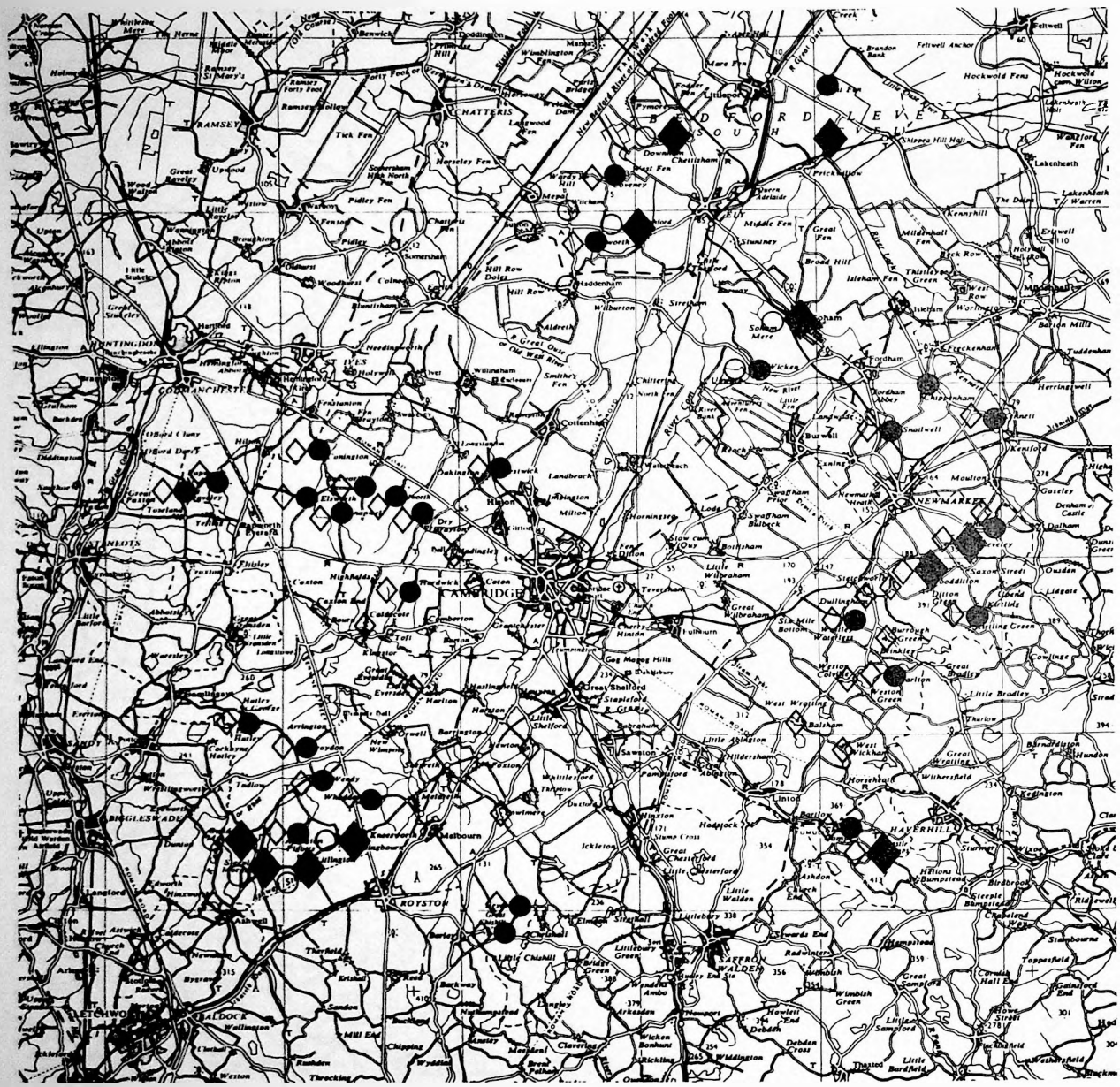


Figure 25.3 Infrequent bus services

Key

● No six day service

◆ No six day service to Cambridge

Fewer than 2 hours in a day (8–5)
with a bus service to:

1) ○ Cambridge

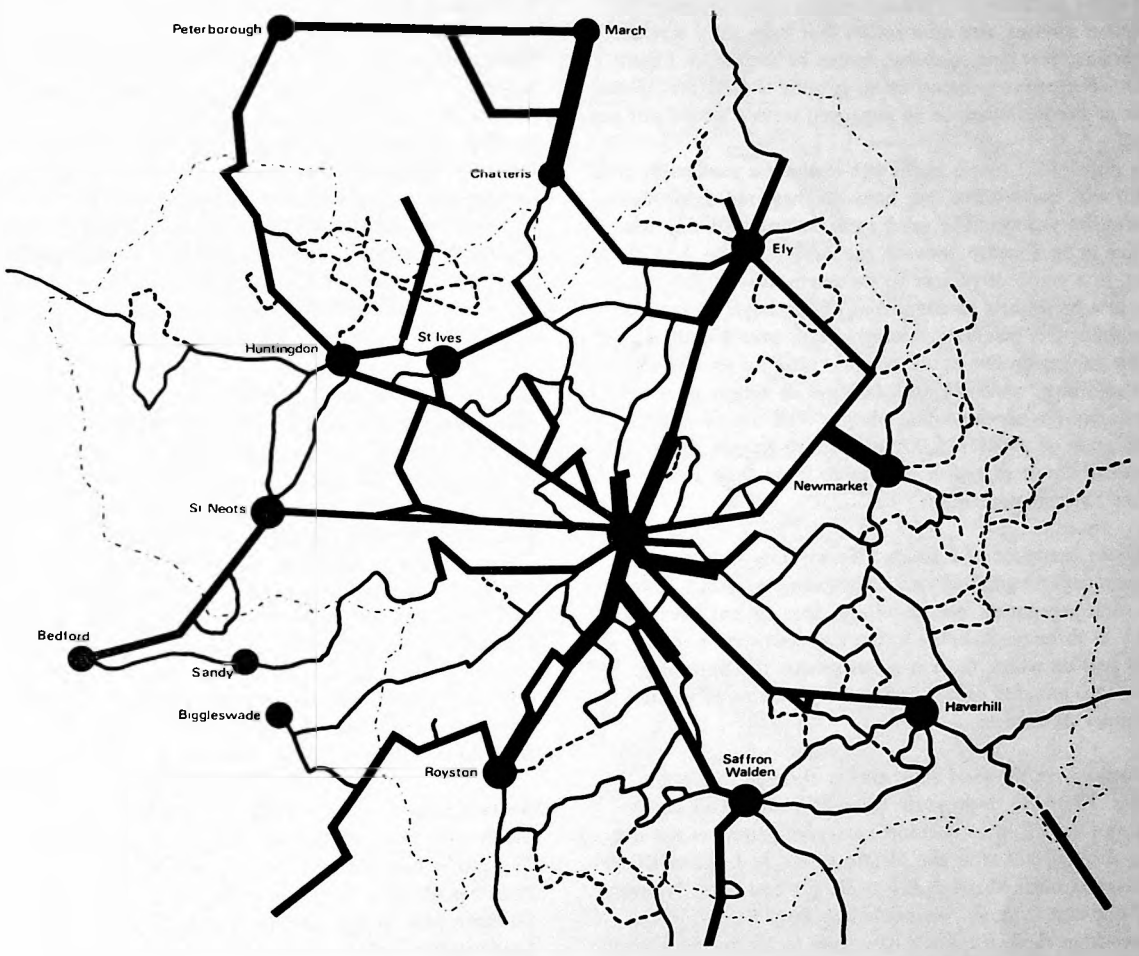


Figure 25.4 Frequency of daily bus services

Key

Routes with a service 6 days a week:
1 – 5 buses per day
6 – 15 buses per day
over 15 buses per day

Routes with a service some weekdays and Saturdays

Eastern Counties Omnibus Company. A company with a publicly granted licence to operate services has some obligation to keep certain uneconomic services going if it is making enough profit on other routes: but there is a limit to what it can do in this respect. As we can see from Figure 25.3 there are many settlements in the sub-region that have very infrequent services, and even routes that have daily services often have few buses per day, as can be seen from Figure 25.4. The primary direct reason is quite simply that in the view of the bus operator an improved service would not pay.

The main radial routes in the sub-region are reasonably provided with bus services, but between these radials provision is often very poor. The main areas lacking a six-day bus service lie in a wedge between the A604 and the A45 in the west, in a group of villages to the north-west of Royston, and in a broad belt running from Ely through Newmarket to Haverhill. Our calculations suggest that over 15,000 people in the sub-region live in villages that have no six-day service to Cambridge, while almost 7,000 live in villages that have no six-day bus service to anywhere. With a total rural population of about 125,000 in the Sub-Region, these figures represent about an eighth and rather more than a twentieth of the relevant population.

Even the existence of a six-day service does not necessarily imply a good service. For example, about 18% of the rural population lives in villages that do not have as many as three clock hours in the day (between 8.00 am and 5.00 pm) on which there is a bus service to Cambridge. This, too, presents only a very poor indicator of the inadequacy of services.

Railways serve the rural areas mainly through four main routes. There is a route south through Audley End and Bishop's Stortford to London Liverpool Street; one south west through Royston and Hertfordshire to London Kings Cross; one north through Ely to King's Lynn and Norwich; and one east through Newmarket to Bury St. Edmunds. Apart from these there is a main line to the north through St. Neots and Huntingdon, with no rural links. There is also a route, without intervening halts, between Ely and the Newmarket–Bury St. Edmunds line. The line from St. Ives to Cambridge is for freight only.

This rail network has six urban stations and fourteen rural halts. They are shown in Figure 25.5. Except for Shippea Hill, all of the stations and halts are on six-day bus routes. Co-ordination between rail-times and bus-times could be improved. All of the stations and halts have a seven day service to Cambridge. Sunday is the only day on which Shippea Hill has a direct service to Cambridge. The highest levels of service are for Ely, Royston and Audley End.

If there is a future for rural public transport in this sub-region it is with road transport rather than with rail. Some new railway halts could be built on existing lines, and there could well be an argument for re-opening the St. Ives – Cambridge line: but except by better integration of road and rail services the railway system is too inflexible and too localised to be of great help to scattered villagers. If additional population is concentrated in certain localities this can to some extent be overcome. Nevertheless, the greatest chances of improvement seem to arise from road transport.

A few ways of securing improvement have been considered. A continuation of dispersal policy has been suggested, but there is no guarantee that this would do much to make bus services more viable. People with cars tend to use them wherever they are living; and the more they use them on country roads the more they put up the costs of operating buses. A variation of the policy is to concentrate new development along well used radial routes. This could lead to increased viability of certain services, possibly to a degree sufficient to allow some subsidy of the less profitable line. Development of village clusters can have similar results. But these are somewhat long-term suggestions for the solution of what is already a pressing problem.

Quite apart from the fact that physical planning can help to provide suitable routes and catchment areas for bus services, we have to try to take account of other methods that are at our disposal. The merits of multi-purpose trips, with one vehicle to deliver the post, the milk and the schoolboy, have long been discussed, but rarely tried out. Car-sharing schemes, dial-a-bus, and other services can be considered. Subsidised services are possible. What is needed is a small set of detailed studies of needs, leading to a series of experiments, to see what systems seem to bring useful benefits to an area and what they cost. It may well be that different systems will work best in different places. We have collected a great deal of material about these ideas, and it is available to the planning authorities.

We turn now to certain problems within the city of Cambridge, onto which eight main radial roads converge. The traffic brought into the city along these roads in most cases has to cross the River Cam, which runs along the southern part of the western boundary of the city, at Grantchester, before snaking deviously north-east, wrapping most of central Cambridge with a semicircular arc, and then going on to cross the north-eastern boundary about midway between Milton Road and Newmarket Road. If one travels into the city from Trumpington in the south, and goes as far as the road permits (which is further than the traffic scheme permits) without crossing the river, the last four hundred yards of the journey will be parallel to it, on the eastern side of the colleges that flank it, as it begins its semicircular sweep. Then, to avoid crossing the river, one doubles back a few yards along the 'spine', before moving more or less parallel to the river again – at a distance – along Jesus Lane and so to the Newmarket Road. In fact the great inner arc created by Newmarket Road, Jesus Lane, Trinity Street, King's Parade and Trumpington Street contains most of the historic centre, and most of Cambridge, all on the south-eastern side of the river.

On the opposite bank there is another outer arc more or less parallel to it. Barton Road, from the west, leads to Queen's Road, running parallel to King's Parade and Trinity Street,

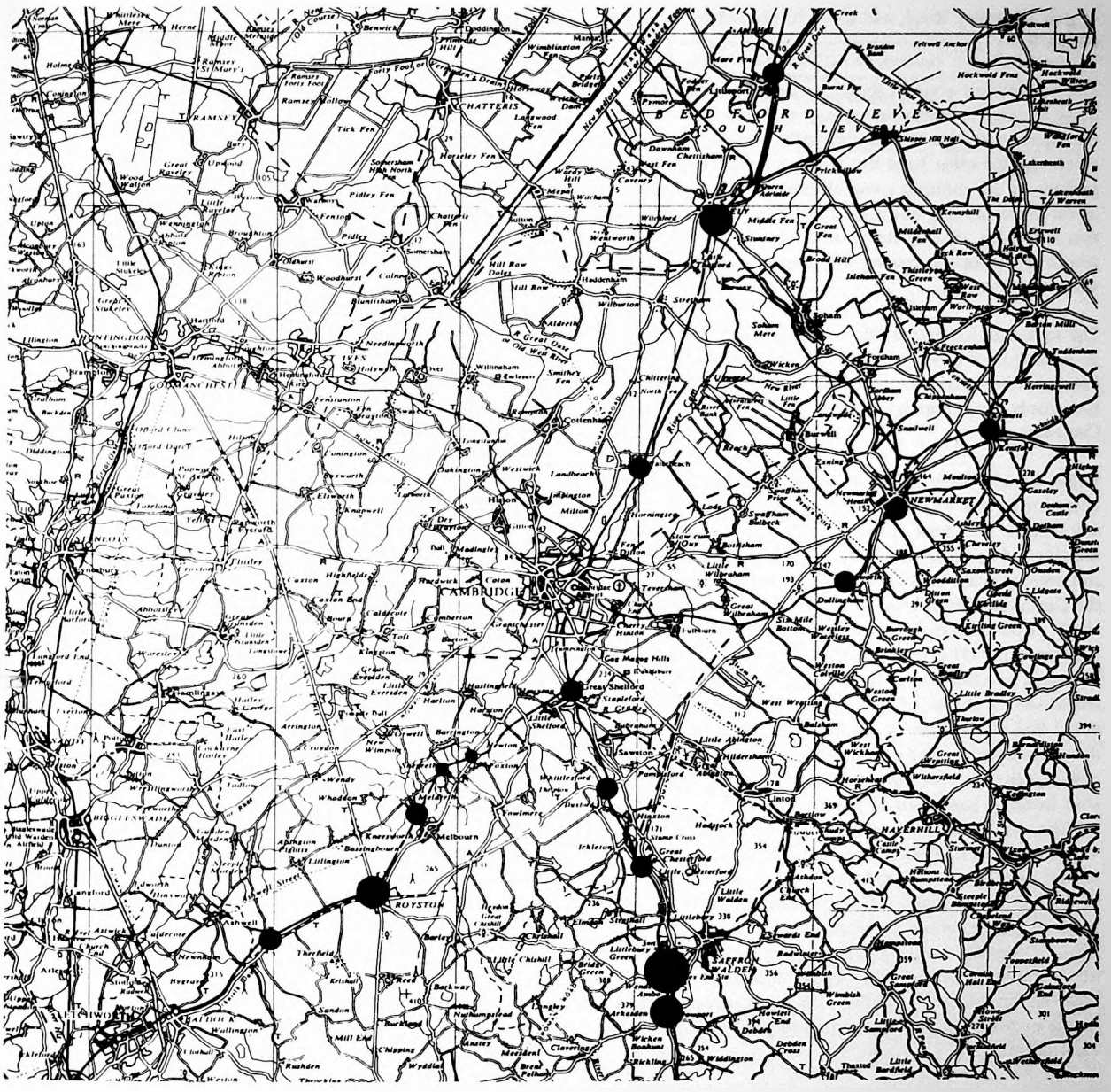


Figure 25.5 Rail services to Cambridge

Key

Number of trains to Cambridge per day;
Monday to Friday

- 1–5
- 6–10
- 11–15
- more than 15
- Connecting service only

to join Madingley Road, and so on to Chesterton Road and Milton Road.

Five bridges now connect these two arcs, and some of them, being narrow, or having narrow approach roads, do not have the capacity to cope with the demands that are made of them. On the other hand this is not the real cause of congestion. In the morning some of these bridges provide a useful brake, slowing down the flow of vehicles to a pace that allows the winding streets and car park entrances to absorb them. In the evening they frustrate the commuters who wish to escape.

The road with heaviest traffic is the Newmarket Road, with an evening peak flow within the City of 2,800 pcu's per hour in 1967, before the new bridge was built. Other very busy roads are Trumpington Road, Hills Road and Fen Causeway.

Within the city there is traffic congestion, and some of it is undoubtedly due to through traffic, which certain by-passes will reduce. But most of it arises out of a desire to enter the city and to move within it. The size of the morning and evening peaks indicate the extent of this. According to the Cambridge Transportation Study, on an average weekday about 11,000 'internal' person trips* commenced between 8.00 am and 9.00 am, and of these about equal numbers had work or education as the purpose. Between them they accounted for about 9,500 of the 11,000 trips. It may be noted that at this time of the morning about a quarter of the recorded trips were pedestrian trips, and another quarter pedal cycle trips. Moreover, about another quarter were trips made by passengers in private cars or public transport vehicles, leaving another quarter made by car or motor cycle. This amount of movement, on foot and vehicle, at this time of day, cannot be much reduced in its quantity: but it can be changed in its quality. Greater restriction on commuter parking, through either prohibition or punitive charging, could help. It would need the creation of peripheral parks and the introduction of some flexible means of mechanised movement within the city. Whether it is an expanded fleet of taxis or the provision of publicly owned bicycles is a matter for local debate.

As a visitor to Cambridge I frequently felt that there were two other neglected contributory factors to congestion. One seemed to me to be a poor standard of driving especially in the utilisation of road space. To some extent this probably dictates what seems to be an inadequate traffic management, which is the second factor. There is room here for improvement.

Several road improvements have been proposed or adopted. They include the dualling of part of Newmarket Road, where delays will still arise at Coldhams Lane junction, and the widening and strengthening of Magdalene Bridge, which will be a difficult task to accomplish without environmental loss. While it will facilitate the entry of buses and other large vehicles from the north, since they then have to negotiate very narrow streets it is of doubtful worth.

The major planned improvements are the northern and western by-passes which will both save Cambridge from a great deal of traffic pressure and facilitate movement within and across the sub-region. Probably the northern by-pass will have the major beneficial effect on Cambridge. The Western by-pass probably offers the greatest opportunity for the future development of the city.

Most of the other proposals are best considered in light of the Cambridge Transportation Study. This is not the place for comment on the techniques used in this survey and predicition of traffic in Cambridge.* We must, however, comment on some of the conclusions that can be drawn from this report.

It should be noted, first, that the study provided predictions based on two different sets of assumptions. One was that population growth would follow the policy favoured by the County Council, providing for an expansion of the surrounding settlements up to a level of 200,000 population by the end of the century. The other was that it would follow the plan advocated by the City, with growth up to 260,000, much of it concentrated in or close to the town. Essentially, these are similar to the dispersal strategy and the 'fingers of development' strategies described in Part One.

At the outset we must note that already growth commitments have overtaken some of the recommendations in the report. In Table 25.1 we compare the existing commitments in various zones with the assumed population levels in 1981 based on data supplied to the study in 1967. This table presents information for urban Cambridge and twenty four rural zones immediately around it. In the urban area and in eighteen of the rural zones, commitments exceed the 1981 prediction. In Table 25.2 we show similar information for the larger zones further out in the sub-region. The total predicted population for 1981 used as a basis for the traffic forecasts comes to 315,540. Existing commitments come to 368,450. The level used for making predictions for the year 2001 was 424,240. Thus commitments are now at roughly the population level that would have been assumed for the year 1991. But they are likely to be achieved and augmented long before then.

One of the major recommendations of the study was a new road within the city along the line of the railway. This 'Railway Route' has been assumed to exist in most of the predictions. When certain other recommendations, including by-passes, the new west road, section 1 of the inner relief road, closure of Queen's Road and Grange Road, and certain traffic management schemes in the Central Area have been

* This is defined as 'a one-way movement between an origin and a destination by a person irrespective of his mode of travel' and 'having both origin and destination within the Study Area'.

* What seems to me to be a very fair comment appears in the *Journal of the Royal Town Planning Institute*, March 1973. It is written by Brian Styles.

Table 25.1 Comparison of 1981 CTS input and commitments within Cambridge EEA

Zone		Civilian population (incl. private households and Institutions)		Difference
		CTS 1981	Commitment (Study Area Review) planning permission and zoned land	
All urban zones		115,985	120,000	4,015
Fowlmere/Thriplow	821	3,180	3,250	
Shelford/Stapleford	822	7,955	7,600	
Pampisford/Hinxton	823	690	800	
Duxford/Ickleton	824	3,930	4,800	
Harston/Hauxton	825	2,522	3,100	
Sawston	826	7,500	8,000	
Fulbourn	831	4,964	4,750	
Babraham/Abingdon	832	1,840	1,950	
Gt. Wilbraham	833	601	1,100	
Linton	834	2,620	3,070	
Fen Ditton	842	760	750	
Bottisham, etc.	843	4,750	5,150	
Histon	851	7,281	7,500	
Cottenham	852	3,820	4,850	
Waterbeach	853	3,730	4,300	
Milton	854	2,052	2,000	
Girton	861	3,962	4,100	
Longstanton/Oakington	862	3,159	2,750	
Bar Hill/Dry Drayton	863	4,020	5,600	
Willingham	864	2,470	2,750	
Hardwich/Caldecote	871	2,299	2,350	
Toft/Comberton	872	2,851	3,300	
Haslingfield/Barton/Granchester	873	3,334	3,445	
Eversden, etc.	874	2,001	2,200	
Rural total		82,291	89,465	7,174
Total		198,276	209,465	11,189

Source: CTS input data and Development Plan Review, 1971: Cambridgeshire & Isle of Ely CC

Table 25.2 Zones outside CTS Study Area: Difference between 1981 commitments and CTS inputs

Zone	Present 1981 commitment	CTS input		General location
		1981	2001	
951	30,105	29,500	36,500	Ely/Littleport
942	48,185	24,160	30,140	Soham
946	20,000	19,800	20,000	Newmarket
941	4,011	4,390	4,950	Weston Colville
947	27,198	37,700	51,060	Haverhill
931	35,251	26,600	34,000	Saffron Walden
922	16,029	17,700	23,000	Royston
921	11,194	12,660	14,540	Melbourn
982	5,222	5,200	9,640	Gamlingay
983	29,210	33,000	40,000	Sandy
972	1,915	1,600	1,800	Eaton Socon
971	49,139	23,390	35,400	St. Neots
981	1,989	2,240	2,670	Bourn
961	6,228	6,670	10,260	Over
962	46,786	45,750	71,600	Huntingdon
969	29,140	18,780	31,000	St. Ives
951	6,849	6,400	7,680	Chatteris
Total	368,451	315,540	424,240	

Source: CTS input data and CSRS Records

adopted, the 'bad' conditions are to be expected in 1981, according to the predictions, only on sections of the Inner Ring Road – Fen Causeway, Gonville Place, Lensfield Road and Chesterton Lane, i.e. the Central Area 'distributor' road. Quite a number of other roads, however, also show 'poor' conditions, particularly the radials: Huntingdon Road, Hills Road, Barton Road and Madingley Road. Trumpington Road, on the other hand, is greatly relieved by the Railway Route, and spare capacity is also shown on Histon Road, Milton Road, parts of the Railway Route itself, and the Eastern Ring Road.

The effect of the 1981 City Plans to put extra population at Fen Ditton is to place extra traffic mainly on the Newmarket Road.

By 1991, conditions on Lensfield Road would become critical.

The predictions for the year 2001 were made on the basis of a corridor network, excluding the Railway Route, but including an Eastern By-pass similar to that embodied in our own strategies. Under the County Plan (dispersal strategy) conditions on the inner ring roads are worse, and several radials become critically over-loaded. If the City Plan is adopted things become even worse. The authors of the Transportation Study considered that it would not be feasible, in economic or environmental terms to provide a road network capable of satisfying the demands engendered by either the City or the County Plan.

Considering these matters further we have reached the following conclusions:

(1) Traffic congestion on the Inner Ring is likely to be 'bad' merely with committed population growth, and even after all the recommended road schemes have been carried out. This does not augur well for the free movement of public transport, for which the Consultants consider 'improved operating conditions' to be essential.

(2) The flow/capacity ratio method of assessment probably under-estimates the likely problems at most junctions, and if these are congested the whole network will be adversely effected. Again free movement of public transport outside the Central Area will be prevented.

(3) The 1991 and 2001 figures suggest that under the 'free demand' conditions hypothesised for the assignments (i.e. a modal split related to unrestrained use of cars for all types of trip), further growth of population will exacerbate the congestion problems cited above, particularly on the Central Area distributor roads. Moreover the greater the population growth, and the more it is concentrated close to the City the worse conditions are likely to become, if no action to change the modal split, or the pattern of land-uses, or both is taken.

(4) The assumptions about public transport usage are based on a continuation of the 1967 level of service. This has in fact already declined very considerably. Moreover, the congestion referred to above would be likely to further exacerbate this decline, though the proposed traffic management measures inside the Central Area will provide some compensation for this by allowing much more freedom of movement of buses in that area.

If however, the amount of bus usage assumed in the assignment is over-optimistic this could throw some of the surplus trips back onto private cars, thus increasing flows and making congestion and therefore public transport services, even worse. It is in fact a familiar spiral, which can only be prevented by a very positive policy to aid public transport both on the traffic management side, and, crucially from our point of view, by the distribution of future population and traffic generating land-uses.

The Transportation Study Report also indicates that with either of the land-use plans at 1981 and 2001 the likely demands for car-parking space in the central parking area will be in excess of the likely supply. Table 25.3 sets out the forecast position for the two alternative plans at the time of 'peak accumulation' (i.e. mid-morning) for 1981 and 2001.

Table 25.3 Comparison of parking demand and capacity in the Central Area, 1981 and 2001

	1981		2001	
	County Plan	City Plan	County Plan	City Plan
Peak demand for parking space (weekday mid-morning, un-restrained)*				
Commuters' cars	4,740	4,820	5,380	6,000
Other cars	3,540	3,580	4,500	4,960
Total parking demand (spaces)	8,280	8,400	9,880	10,960
Approx. parking capacity	7,280	7,280	7,280	7,280
Shortfall	1,000	1,120	2,600	3,680
Shortfall, % of total demand	12%	13%	26%	34%

*More precisely: restrained at 1967 levels of cost and convenience.

Source: Cambridge Transportation Study (R. Travers Morgan and Partners), 1972

Perhaps the most important point to note here from a strategic view point is that, as population growth proceeds, whatever its location in relation to Cambridge (within certain limits), so the volume of unsatisfied parking demand grows. This is, of course, inevitable while the Historic Centre and Kite area remain the Sub-Regional Centre, setting a fixed upper limit to the ultimate volume of parking supply.

The Report goes on to examine the results of restraining demand down to a level where it equals supply, under two alternative policies related to parking charges: a free-for-all, and a priority system. This analysis is set out in Table 25.4. The Consultants conclude from this that a priority parking system to exclude the correct numbers of car commuters should be operated. This indicates that an increased rôle for public transport is required, and as the demand/supply situation gets worse with population growth, so the rôle of public transport becomes more important. No indication is

Table 25.4 Approximate effects of alternative car parking policies on Central Area parking and traffic

	1981		2001	
	County Plan	City Plan	County Plan	City Plan
'Free-for-all' system of parking restraint.				
Reduction in demand at peak accumulation:				
Commuters' cars	270 (6%)	230 (7%)	830 (16%)	1,390 (23%)
Other cars	730 (21%)	800 (22%)	1,770 (39%)	2,290 (46%)
Percent reduction in parking volume (arrivals per day):				
Commuters' cars	5%	6%	16%	22%
Other cars	6%	7%	21%	25%
Percent reduction in traffic flows:				
AM peak to the area	0%	0%	0%	0%
PM peak from the area	2%	2%	8%	14%
24 hour weekday, to and from area	4%	5%	15%	18%
'Priority' system of parking restraint				
Reduction in demand at peak accumulation:				
Commuters' cars	1,000 (21%)	1,120 (23%)	2,600 (49%)	3,680 (61%)
Other cars	0	0	0	0
Percent reduction in parking volume (arrivals per day):				
Commuters' cars	13%	14%	29%	37%
Other cars	0%	0%	0%	0%
Percent reduction in traffic flows:				
AM peak to the area	7%	8%	15%	20%
PM peak from the area	9%	10%	15%	15%
24 hour weekday, to and from area	2%	2%	5%	6%

Source: Cambridge Transportation Study (R. Travers Morgan and Partners), 1972

given by the Consultants of how this is to be achieved, apart from the improvements to the level of public transport service which would arise from priority schemes within the Central Area. As indicated above, however, there will be congestion outside the Central Area even with planned improvements and this will inevitably increase as population growth proceeds. It seems likely therefore that traffic management in the Central Area alone will not be sufficient to provide public transport with the necessary improved level of service.

In order to provide for more freedom of movement of public transport outside the Central Area it may well be that further restriction on the demands for use of cars will be necessary, over and above those needed to bring demand into line with the supply of spaces. The need for this may be increased by the fact that the future level of public off-street parking space which has been assumed to exist in 1981 may be over-optimistic. No indication is given by the Consultants of the level of restraint likely to be necessary to match demand and supply for road space, while at the same time giving greater priority to public transport over the network as a whole, particularly after 1981. An analysis is made, however, of the percentage reduction in overall traffic flows approaching or leaving the Central Area if there is either a reduction of demand to equate with a very optimistic forecast of likely parking supply, or a reduction to equate with a very pessimistic forecast (i.e. no more peripheral car parks than now). Obviously the most likely situation lies somewhere between these two ranges. These are set out in Table 25.5. for the County Plan, at the evening peak.

Table 25.5

Priority policy		County Plan			
Central area parking provision		Reduction in traffic flows (pm peak)			
		1981 (Commuters' cars)		2001 (Commuters' cars)	
		Volume	%	Volume	%
Optimistic forecast	7,280	1,000	9	2,600	15
Pessimistic forecast	5,480	2,620	15	N/A	N/A

Source: Cambridge Transportation Study (R. Travers Morgan and Partners), 1972

Further tests would be required to indicate the precise amount of restraint which would be required to control the flows on the Central Area distributor roads to a reasonable level. Such a policy would, however, imply deliberate non-provision of some of the additional space planned, and by implication an extremely privileged position for those with access to private off street space inside the Central Area, particularly the Colleges and University. If this is unacceptable, then it may be preferable to accept the levels of congestion on the network forecast for 1981 with a 'free demand' situation, and to pray that public transport will be adequately improved by Central Area traffic management.

Unfortunately, however, we must then ask what should be done when growth proceeds beyond commitments, and both parking demand and congestion continue to build up. The answers to this question provide the pointers towards the qualities which any preferred strategy should aim for from the transportation point of view.

The potential for an improved and attractive public transport system must be strengthened by the strategy, in order to attract Central Area trips away from the private car mode. This is vital in view of the way in which both the shortfall of parking supply and the congestion on the road network are likely to increase with any growth of population that is at all related to Cambridge.

To varying degrees this applies to growth anywhere in the sub-region. The ways in which different strategies can influence this factor depend very much on population distribu-

tion, but policies towards traffic management and subsidy are also very important.

A general reduction of long term pressure on the existing Centre either by the creation of a new sub-regional Centre, or through a devolution of as much activity as is feasible away from the Centre into more accessible locations, is another policy.

The choice of plans in the Cambridge Transportation Study is in essence a choice between two existing plans for concentration and dispersal. It was made only upon transportation grounds. No firm recommendations are given by the Consultants but the differing population of the two plans, and the limited choice which only two alternatives afford, made their task very difficult.

In view of the conclusions already drawn in this chapter from the Transportation Study Report it is not surprising to find the Consultants concluding that:
"On balance we conclude that, for a fixed level of investment in transport, the plan with the lower population, i.e. the County Plan, is to be preferred from the traffic and transport point of view."

Such an observation is, of course, inevitable and begs a question that we try to answer: can population growth be restrained to the levels suggested in the County Plan? Moreover, it dodges the issue of whether the County Plan in its 2001 form (i.e. 38% EEA growth) is feasible, particularly as it was earlier stated that "on neither plan can the network be improved to design standards within the resources likely to be available."

The Consultants also conclude that:
"For a given level of population the form in the City plan – greater growth of the urban fringe areas – gives greater scope for public transport services than a County plan form of development. There will be better options for the use of alternatived modes of travel with the City plan than the County plan."

This may well be true but it would require drastic traffic management measures to ensure that public transport was able to move freely on the network.

Another recommendation of the Consultants is of some interest. It is that:
"Future land use developments should be concentrated in corridors such as Histon–Cambridge–Shelford to give flexibility in the planning of transport (roads or rapid transit) especially in the long term."

Here is something approaching our own strategies, but it does not have the feature of the Second Centre. Further favouring of a city expansion rather than of dispersal comes in another sentence:
"On balance we consider that for a given level of population the form of development as envisaged in the City plan is to be preferred from the traffic and transport point of view."

I feel this really means they prefer concentration to dispersal.

Moving from these considerations of main concern in the city, we may now note that throughout the sub-region there are very considerable road improvements planned. There are many uncertainties in making orders under Sections 7 and 9 of the Highway Acts 1959–71, just as there are in Compulsory Purchase Orders and financial commitments. It is therefore not a very good idea to imply anything as precise as a starting date, or a finishing date, for any road scheme. We can, however, present a list of the schemes likely to be carried out by 1980 in the area covered by this study. This is done in Appendix 13.

Other aspects of transport are mentioned in Chapters 11–17 and in our evaluation.

Chapter 26

The University

Our term of reference required us to examine the economic role of the University of Cambridge in the sub-regional economy. In the time at our disposal we had to decide upon priorities. There were some matters where further knowledge or analysis would probably help affect my recommendations, while in other cases they were unlikely to do so. Given further time we could have estimated the total income generated in the sub-region because of the existence and activities of the University. If there had been some proposal to close it down this would have been very important information. It may be argued that it is likely to be important in any case because the University may grow. This is true, but decisions about whether it will grow are unlikely to depend critically upon how that growth would affect the sub-regional economy. Moreover one would still need to consider such matters as possible changes in staff ratios, accommodation, and so on.

Instead, therefore, of devoting our limited resources to producing interesting but not (in our context) very useful estimates, I decided to use them in other ways. On the other hand, certain points about the University should be made. Some have already been made in other Chapters.

The University at present has about 11,500 students. Until 1945 its various buildings, including the Colleges, were located almost entirely within the Historic Core of the city, with the main teaching area being in the New Museums and Downing sites. Since then there have been important changes. Existing sites have been redeveloped. Teaching facilities have been developed in the main urban area, notably to the west of Queen's Road, and other sites have been developed for University purposes mainly to the west of the City, off Madingley Road, but also elsewhere, such as at the new Addenbrookes Hospital, some miles to the south.

College developments have also been extensive. Fitzwilliam College and New Hall have large new buildings on new sites to the north-west of the centre, far outside the famous 'ring of colleges' that defines the historic centre. Churchhill College, too, lies outside it. So does the Sidgwick Avenue development that houses the social sciences. A science area in West Cambridge, of about 125 hectare, has begun to be developed. The colleges have burst out of their cloisters.

The point is that the University is growing. It has done so for many years, and seems likely to continue to do so. In 1971-72 there were 11,176 students at the University.

The number specified by the University Grants Committee for 1976-77 is 11,700. Within the University there are suggestions of a figure of 13,000 by 1981 and possibly 15,000 by the year 2001.

The expansion of student numbers requires both living accommodation and teaching and other space. Many colleges have lately carried out substantial reconstruction schemes, often hampered by the necessity of maintaining the outward appearance of the building. There is a limit to what can be done in this way. Plans for west Cambridge envisage further considerable development of new college buildings, some of it on new sites.

At the time of the Cambridge Transportation Study about three-quarters of the undergraduates were accommodated in colleges or college hostels. A variety of reasons, including the incidence of capital gains tax on houses used partly for the boarding of students, have led to a marked decline in the eagerness of housewives to become landladies on the scale that was common. This is one reason why many colleges are now having to expand their own accommodation facilities. Much of it has been on existing college sites. Hostels have been provided both in the historic centre (such as for King's College in Peas Hill) and in West Cambridge. Most post-graduate students live in flats and houses in the privately rented sector, especially in the inner areas of Cambridge. A survey conducted by the County Planning Department in 1969 showed that 27% of all students lived in accommodation other than colleges and hostels. A third of these lived in the Historic Centre or the 'Kite area' (around Fitzroy Street-Burleigh Street) while a fifth of them lived in West Cambridge.

As part of their attempts to house more students, colleges have been converting large houses into hostels, mainly in the western parts of the city as the University has expanded in that direction.

It seems likely, at present, that the UGC may impose a lower growth rate on the University than it would wish to have. If this is so the impact of university students on the housing market may well become less significant than that of other students and young people. This would be particularly true if the city acquired a polytechnic, which seems indeed to be both a desirable and a practicable step: it is, to say the least, anomalous that in a city and county with such important and well known educational facilities, those that are best provided by a polytechnic are to be found wanting.

Student demand for housing affects mainly the Victorian and Edwardian properties in the inner areas of the city. It is these that are most likely at some stage to be demolished, especially if the central area is allowed to expand. Total pressures on this limited and probably decreasing stock of accommodation are likely to rise. On the other hand one might envisage that developments at the new Addenbrookes site will lead to the need for teaching facilities in that area, and eventually, especially if there is a southern expansion of the city, possibly to certain forms of student accommodation there.

The University also presents a traffic problem. It is not just a case of bicycles and absent-minded pedestrians or drivers. The Transportation Study reported that people living in University and Residential Establishments owned 3,185 motor vehicles in 1967. The number owned by other residents of the City came to 21,042. A fifth of the undergraduates aged over 22, a twentieth of younger undergraduates, and 16% of the graduate students owned cars and kept them in Cambridge. Much more important is the existence of College car-parks, especially in the centre of the City, facilitating the use of cars by senior (and sometimes junior) members of the Colleges. Forty-four percent of the privately owned motor vehicles parked in the historic centre on Monday to Friday were, in 1967, parked in private off-street parks. Most of these were college car-parks.

As the University expands further West, so the tendency to use a car rather than a bicycle will grow. Any serious attempt to limit the presence of the car in the historic centre would have to secure the cooperation of the colleges or forbid access to them. It should also be remembered that a restriction on parking within College premises would affect Cambridge quite differently from a restriction on parking by shoppers.

The University is well aware of these matters. In its statement about the report of the Cambridge Transportation Study they point out:
"Time schedules for teaching are governed by the requirements of programmes of lectures, seminars, supervision and practical classes, and because of the complexities involved in programming such a wide range of activities are necessarily infelxible in some measure. Many junior and senior members have to move between Departments and Colleges throughout the day and for obvious reasons they must be able to do so freely. Others (and particularly more senior officers) have to be able to move at irregular times from one site to another to meet the demands of their work. Thus a medical professor engaged in consultancy may have to travel between his laboratory on a central site and one or other of the hospitals at various times throughout his working day, as well as to visit his College or the central offices. There is a very considerable difference between the more usual type of house-to-office traffic and the continual movement within the city and immediate environs which is an inescapable and desirable part of the functioning of a University."

They also make an important point, and an important offer, about car-parking.
"The Council would be prepared to co-operate in any generally applied overall and comprehensive policy to ban commuter parking of the conventional type from the historic centre. It is, however, vital that it should be recognised that the problems of Cambridge University differ from those of universities with a 'campus' because both the Departments of the University and also the Colleges are scattered throughout the city area, and in accordance with the general planning policy of City and County, important buildings have been recently sited in outlying areas such as West Cambridge and the New Addenbrooke's Hospital Site. In some Departments it is essential for mem-

bers of staff to have cars at their place of work because their duties involve travel between a number of sites. It is already the policy of the University to give priority in University parking areas to vehicles essential to the duties of members of staff. The Council consider it essential to the working of the University that those who are now able to keep their cars at their place of work, so that they are readily available to use for purposes connected with their University duties, should continue to be allowed to do so. Subject to this consideration the Council would be very glad to co-operate in the planning and introduction of any Transport/Parking Plan that was applied equitably to all types of traffic moving through and within the town."

There is no doubt that the voluntary restriction of car-parking facilities in college grounds would help a great deal: but it would be very difficult to devise a measure of necessity. With every respect to my academic colleagues, I doubt whether many Cambridge dons at present using cars for commuting would be party to an arrangement that prevented them from continuing to do so. The University lays great emphasis on the importance of encouraging the use of bicycles. Perhaps one answer would be to provide some car parks on the edge of the city for use by University and college staffs, who would be encouraged also to keep cycles there, so that journeys within the city would be on cycle.

The University undoubtedly has a stabilising influence on the economy of Cambridge. Although its impact on shops and landladies has a strong seasonal element, this is countered to a very large degree by the seasonal pattern of tourism, of which most can be attributed to the attractions of the colleges. Some shopkeepers, not, unfortunately, including sufficient of a kind benefitting greatly from tourist expenditure, went to some trouble to provide us in confidence with data about weekly turnover over a period of some years. It suggested that tourist expenditure more than made up for the decline in student spending during the summer.

Much more important than the seasonal pattern, however, is the long-term stability of a major source of employment and spending. Information supplied by college bursars, and calculations based on numbers of students and levels of grants, suggest that total expenditure by the University and its colleges, and by university and other students, in the shops of Cambridge amounts to about £4 million. To put this in perspective one has to compare it with our estimate of £10 million spending by tourists, and £21 million spending by the households of Cambridge.

There are some problems in estimating the wage and salary bill of the University and its colleges. The number of university staff in 1972 was 4,159. This excludes people employed by the Local Examination Syndicate, and employees of colleges. The difficulty is that payments to University teaching staff come partly out of University funds, partly out of college funds, including some in the form of accommodation and various privileges which are very difficult to value.

Quite apart from these members of staff, there are college employees. Some of these are employed on the college estates, which are not entirely within the sub-region. Some are employed in the kitchen, for which colleges keep separate accounts; and some in general college duties.

The various colleges do not have completely identical systems of keeping accounts. In particular, for some colleges 'Maintenance of Establishment' appears to include no payments of wages to college employees while for others it does. At a minimum interpretation of the college accounts for the year ending 30th June 1972, wages and pension contributions of college staff (excluding college officers and tutoring or supervisory staff), totalled about £1.2 million. This excludes kitchem staff, to whom payments of about £0.8 million were made. Thus, at a minimum estimate, college non-teaching staff are paid a total of £2 million. This excludes payments arising out of the college estates, chaplain's stipends, certain payments to library staff, and so on. It also excludes payments to college servants by members of the college, and others.

Statistics published by the Department of Education and Science show that in 1969–70 the University paid £3.77 million in salaries and wages to 1,076 teaching and research staff. This, of course, is far from the whole story, since substantial payments are made by the Colleges, both in the form of stipends and fees and through the provision of rent free accommodation, meals and other privileges. It is not possible to disentangle all of this with any precision from the published accounts, but it could amount to another £3 million.

The University also paid departmental wages amounting to £1.46 million.

Thus in all it would seem that University and college wages, salaries and allowances come to at least £10 million. This is an income associated with a highly stable employment. Even though the ratio of staff to students will probably decline, it is likely that the growth in student numbers will ensure that either there is no decline in employment or that, if there is, then it will come about very slowly. In a city the size of Cambridge a single source of employment which provides annual payments amounting to something that must approximate to 15–20% of the total earned income of its residents and is also stable is bound to have a generally stabilising effect on the local economy. This has been discussed further in another chapter.

The University and Colleges are also substantial owners of property in and outside Cambridge. The total gross income of the twenty six colleges from their estates at present amounts to about £2 million per annum. This excludes any income imputed to the occupation of the colleges themselves. There are of course substantial management and other outgoings to be taken into account, but the bulk of this income becomes available for College uses.

The occupation and ownership of large amounts of land in the centre of the city has been the cause of some comment. The colleges and their grounds provide, in most cases, absolutely rigid constraints on the development of the city. Some of

the university and college developments undertaken in the late nineteenth and present centuries are architecturally undistinguished and unsuited to present needs. No doubt at some time there may be redevelopment in these cases, but in the main the college buildings are inviolate, and the green spaces owned by them are almost equally so.

While rigid constraints of this kind present difficulties it must not be thought that they are imposed by the colleges upon a city that is unwilling to accept them. For example, the residents of the city undoubtedly derive a great deal of pleasure from the unrestricted use of college lands. It is sometimes argued that the City receives far too little in rates from these occupiers of central area land, and there may be some truth in this. Rates paid on College buildings in 1971–72 totalled £340,000, which is certainly lower than commercial properties would pay if they occupied those sites. Yet they do not, and in all honesty we hope that they never will. This is a matter to which we refer again in the Chapter on Rates.

One aspect of land ownership by the colleges raises something of a conflict. Colleges depend to various degrees on income from their estates: but all are eager to see it grow to help them cope with their growing expenses. This means that they sometimes have to look upon certain redevelopment schemes in much the same way as would any other property owner, and at times the aesthetic consequences are not universally acceptable. College ownership is no guarantee against commercial pressures winning the day. In this respect it is worth making one more quotation from the University's statement on the Transportation Study:
"The present commercial redevelopment in the historic centre must not be regarded as something which has set the pattern for all time. The Council hope that the possibility will always be borne in mind of reducing the intensity of land use on the historic centre as redevelopment of the city continues into the next century."

It is a point that is not irrelevant to the debate at Fitzroy-Burleigh, especially when we keep in mind the points made earlier in the chapter about university demands for residential accommodation.

Chapter 27

Public utilities and services

There are brief references to some of these in various other chapters. In our generation and evaluation of alternative strategies we kept them well in mind, with an eye both on the constraints imposed by them and on the contribution that we could make to their efficiency. This is clear in our evaluative studies. I do not feel, however, that a detailed description of them at this stage would contribute to our account of the problems of the sub-region and our attempt to find a solution for them.

The principal problems arise in matters of drainage and sewage, and accessibility to educational and medical services. They are considered in detail in the appropriate places.

Chapter 28

Rates and rateable values

Rates are the major form of local taxation. They are levied on the owners or occupiers of property. Every property (other than exempted property) is given a rateable value, which is re-assessed from time to time. Every year local authority income is raised by imposing a rate that is, effectively, stated as a multiplier of the rateable value.

In principle the rateable value on houses reflects the net letting value. This is very difficult to determine, and it is often the subject of an appeal in individual cases. To a large extent these appeals provide a means of comparison, and help to keep a certain degree of consistency in the assessments of rateable values.

Property for which it would be especially difficult to assess a probable letting value are assessed on another basis, while some shops have a value assessed on a zonal basis, depending on the location, frontage and depth of the shop. For example, in the main shopping area in Cambridge, where rents are highest, the 1963 assessment of rateable value was reached by imposing £4.50 per square foot for the first 20 feet in from the shop frontage, £2.25 per square foot for the next 20 feet of depth, and £1.12½p for each square foot even further back. There were then allowances for various local factors. In other streets shops are rated according to their letting value. This is also true of offices and other commercial property.

Thus, with considerable imperfections, commercial buildings have a rateable value that reflects their rent, or their imputed rent. This in turn bears some relationship to the profits that the occupier expects to earn through the occupation of the building. In a very crude form it provides a tax on what an occupier of average efficiency would expect to earn. It may be noted that it does not necessarily reflect the demands that the occupier (and his customers or clients) may make on public services as a result of his occupying those premises. Thus a shop whose principal space is more than twenty feet in from a frontage may well generate more road traffic than one with differently arranged space, and which pays more rates.

Another basis is used for the assessment of the rateable values of buildings from which the net letting value is difficult to calculate, and to which there is no similar property that can form a useful basis of comparison. This is known as the 'constructors basis'. Basically, this involves calculating the volume of the existing building and then estimating how

Table 28.1 Rateable Values April 1971 (£ 000)

Local authority	Total all (£000)	Domestic (excluding Crown domestic) £1–100	%	£101–200	%	£200+	%	Total domestic inc. Crown domestic	%	Shops	% Total	Offices	% Total	Other commercial	% Total	Industrial	% Total	Other inc. non-domestic Crown property	% Total	Population mid year 1970 (000)	Average rate* levied per dwelling 1971–72 (full rate no domestic subsidy)
Cambridge MB	6,247.1	1,427.4	22.8	1,073.2	17.2	302.9	4.8	2,808.3	44.9	915.9	14.7	245.4	3.9	444.7	7.1	462.0	7.4	1,370.8	21.9	100.1	£77.08
Bedford MB	4,462.1	989.0	22.2	922.5	20.7	35.6	0.8	1,952.6	43.8	707.7	15.9	112.1	2.5	350.7	7.9	654.9	14.7	684.1	15.3	69.2	77.34
Peterborough MB	3,252.5	1,330.9	40.9	243.5	7.5	24.6	0.8	1,601.6	49.2	381.2	11.7	76.0	2.3	342.9	10.5	369.7	11.4	481.1	14.8	66.9	68.59
Oxford CB	7,361.5	1,599.0	21.7	1,077.4	14.6	287.5	3.9	2,972.2	40.4	1,094.4	14.7	292.6	4.0	598.2	8.0	954.0	13.0	1,450.1	19.7	109.3	80.75
York CB	4,173.1	1,720.8	41.2	121.3	2.9	12.5	0.3	1,873.8	44.9	699.3	16.8	179.8	4.3	316.0	7.6	383.6	9.2	720.6	17.3	107.2	43.20
Swindon MB	4,217.5	1,527.0	36.2	311.0	7.4	7.7	0.2	1,850.0	43.9	788.9	18.7	122.5	2.9	261.2	6.2	590.2	14.0	604.7	14.3	98.1	56.01
Ipswich CB	5,775.9	2,348.5	40.7	382.1	6.6	11.2	0.2	2,751.6	47.6	738.0	12.8	265.7	4.6	440.1	7.6	771.6	13.4	808.9	14.0	121.9	52.00
Poole MB	6,306.6	1,705.2	27.0	1,571.5	24.9	708.9	11.2	3,999.5	63.4	4,088.8	6.5	80.7	1.3	316.9	5.0	714.1	11.3	786.6	12.5	106.6	95.50
Norwich CB	6,632.4	2,051.2	30.9	347.0	5.2	32.9	0.5	2,466.0	36.9	1,092.1	16.5	373.2	5.6	657.5	9.9	964.2	14.5	1,099.4	16.6	120.1	43.60
Reading CB	8,080.5	2,190.2	27.1	1,164.5	14.4	40.4	0.5	3,412.7	42.2	1,216.2	15.1	552.5	6.8	739.1	9.1	973.2	12.0	1,186.8	14.7	127.3	61.20
Bath CB	3,755.5	1,381.1	36.8	648.7	17.3	63.4	1.7	2,095.7	55.8	523.9	14.0	79.4	2.1	247.8	6.6	198.2	5.3	610.5	16.3	84.8	64.02
Exeter CB	5,863.2	1,526.7	26.0	818.7	14.0	107.9	1.8	2,471.4	42.2	1,067.8	18.2	238.7	4.1	664.6	11.3	345.1	5.9	1,075.6	18.3	93.3	65.94
Cambridge CC	13,498.9	4,663.0	34.5	1,938.8	14.4	380.8	2.8	7,061.3	52.3	1,318.5	9.8	309.4	2.3	859.7	6.4	1,427.1	10.6	2,522.8	18.7	304.7	
Non-County Boro's England & Wales	357,147.2	122,737.4	34.4	48,430.2	13.6	7,678.9	2.2	180,244.7	50.5	38,026.5	10.6	7,742.4	2.2	24,946.7	7.0	54,517.2	15.3	51,669.7	14.5	7,481.2	
All rating Auth's England & Wales	2,492,798.4	763,429.8	30.6	340,088.6	13.6	84,485.3	3.4	1,196,730.2	48.0	224,575.9	9.0	153,620.3	6.1	183,263.3	7.4	338,156.8	13.6	396,451.4	15.9	48,987.7	

Source: Rates and Rateable Values 1971–72, HMSO

Table 28.2 Rate levied per head of population–1971-72 (as at April 1971)

Local authority	Education	Public Health					Local health authority ser's	Social services	Town planning	Highways and public lighting	Fire	Police	Housing	Other rate fund services	Trading services	Total net rate and grant borne expenditure	Total rate all services (after Gvt. grant)	Average rate† per domestic hereditament	Average rate per head	Population mid-year 1970, '000	Rate levied (new pence) 1971–72
		Public lib. art gallery etc.	Sewerage and disposal	Refuse collection and disposal	Parks and open spaces	Other health															
Cambridge MB	61.13	1.41	4.53	1.65	1.16	1.59	3.37	5.32	2.02	12.18	2.02	7.16	3.75	4.35	1.10	111.31	53.24	67.90	62.46	100.1	87.0
Bedford MB	56.99	1.83	4.17	2.02	2.47	1.96	3.73	5.57	1.08	10.82	1.90	6.70	2.91	4.93	1.14	105.12	56.92	67.83	64.51	69.2	90.0
Peterborough MB	59.40	1.14	4.47	1.62	1.33	1.24	2.61	4.37	1.00	8.56	1.71	5.75	4.42	8.32	0.63	105.47	47.08	62.01	48.64	66.9	99.0
Oxford CB	40.45	1.73	3.59	1.67	1.49	1.28	3.06	6.52	0.32	4.95	1.87	6.62	3.75	9.86	*0.45*	92.85	56.66	71.98	67.33	109.3	87.5
York CB	41.19	1.57	2.71	2.45	0.77	1.57	2.31	5.48	0.56	4.91	1.31	3.38	3.09	4.35	0.51	74.83	33.51	38.45	38.95	107.2	85.5
Swindon MB	48.63	2.07	3.55	1.52	1.69	1.61	2.41	4.39	1.18	7.48	1.18	6.00	0.63	9.59	*0.17*	89.40	37.60	50.04	42.99	98.1	89.0
Ipswich CB	39.67	1.26	2.42	1.72	0.74	1.16	2.18	4.41	0.65	3.72	1.90	7.24	2.18	7.12	*0.56*	74.51	36.47	45.71	47.37	121.9	78.5
Poole MB	51.57	1.04	4.10	2.49	0.98	1.33	2.89	5.67	1.62	10.93	1.79	7.69	2.72	7.92	0.12	98.23	47.99	78.01	60.26	106.6	83.0
Norwich CB	37.67	2.22	3.91	1.86	1.58	1.15	2.36	5.94	1.65	5.32	1.61	6.95	7.31	4.92	1.13	85.43	45.70	38.53	55.18	120.1	81.7
Reading CB	46.30	1.62	3.81	1.62	1.50	2.31	1.75	5.68	0.94	6.80	1.43	3.24	3.62	2.74	1.31	82.55	46.80	53.45	63.00	127.3	75.0
Bath CB	32.23	1.48	2.16	2.28	1.43	0.84	2.40	5.02	2.11	5.35	1.43	5.57	5.40	6.11	0.47	79.78	37.95	57.26	44.26	84.8	90.0
Exeter CB	37.89	2.88	5.71	2.89	1.13	1.00	3.07	5.90	2.57	7.03	1.38	8.09	2.89	6.09	1.13	87.27	51.76	58.36	62.82	93.3	82.5
Precept of Cambridge CC	43.55	–	0.48	–	–	–	2.40	3.79	0.70	6.60*	1.44	0.04	–	2.18	–	137.1	23.54	–	44.31	304.7	
Average England/ Wales	43.50	1.41	3.18	2.26	1.40	1.51	2.66	5.30	1.21	7.22	1.54	6.98	5.78	6.59	0.80	89.30	40.94	–	–	48,987.7	87.8

*Highways and bridges
Italic = Credit
†Including Subsidy

Source: Return of Rates 1971–2, Institute of Municipal Treasurers and Accountants. Municipal Year Book, 1972

much it would cost to replace it with one built out of bricks and mortar, with various allowances for age and obsolescence. The Cambridge Colleges have been assessed on this basis. In 1966 Downing, Newnham and Churchill Colleges had their assessments put onto this basis after appeals.

We must also note that agricultural land and buildings, which have not been valued for this purpose for nearly forty years, and therefore present difficulties of assessment, are exempted from rate payments. In an area where the amount of agricultural activity is comparably high, this places a certain burden upon the occupiers of other buildings. Whether there should be any change in this practice is a question for decision at a national level. It is not a simple matter, even though it is one that is frequently commented upon.

With the exception of this matter of agricultural rating, which is particularly difficult in the Newmarket area because of the stud farms and the assertion that arguments relevant to the de-rating of other forms of agriculture should not apply to them, there are no exceptional rating problems in the sub-region other than one in Cambridge, arising largely out of the colleges.

Table 28.1 summarises information about rateable values of different kinds of property in Cambridge and certain other towns. It shows that there is a relatively high percentage of rateable values arising from 'other property including non-domestic crown property'. This includes colleges and the University in Cambridge. It can be seen that the rateable value of domestic property forms 44.9% of the total rateable value. This is higher than in some of the other towns here listed, but lower than the national average. When expressed as a fraction of rateable value arising out of property excluding the 'other' category it comes to 57.5%. This compares with a national average of 57.0%, and with 59.1% for all non-county boroughs. The low proportion arising from industrial property is to be expected, as is the high proportion arising from shops. It may be noted that the average rate levied per dwelling is about the same as in Bedford, where the industrial share of the rateable value is more or less the same as it is nationally. Amongst residential property there is a concentration at the upper end.

It has been argued that the Colleges do not pay the rates that they should pay. They occupy land that in some cases is very definitely central area land, yet expressed in terms of rateable value per square metre of land occupied by buildings, their contribution is undoubtedly low. In some cases it comes to very much less than £2 per square metre, compared with payments by some shops that are well in excess of ten times this figure. Indeed one shop in Sidney Street pays a rate per square metre that is almost thirty times that paid by one college. When one considers that these calculations are based on a definition of 'land occupied' that excludes open space, chapels and cloisters in colleges, the smallness of the contributions from colleges looked upon simply as occupiers of land becomes all the more apparent.

On the other hand, as we have already said the basis of rating is a crude approximation to a tax on the profits earned through the occupation of the building. On this basis, few Colleges would pay high rates. Whether the colleges pay 'a fair share' in terms of the rate expenditure that they necessitate is a different question. To answer it would require a great deal of work, and even then it would be a pertinent question only if it were also asked of other land occupiers. It would in fact make sense only as part of a much wider enquiry into rateable values and local taxation.

There is, too, another side of the story. The colleges and the University provide amenities for public use of a kind that in most towns would be provided and maintained, if at all, through expenditure out of the rates. Moreover, there is no question of turning a college court yard into a shopping space, or of moving it to some other place. Public opinion would not allow it. If public opinion is consistent it will not at the same time penalise the colleges for being where they are. Nevertheless, it could well consider whether college grounds that are turned into car parks should be rated.

What probably makes some of the rate burden on Cambridge appear to be higher than it needs to be is that it is a sub-regional centre, and has to make appropriate provision: but its size has been held back at a time when the sub-regional demands upon it have been increasing.

Under the General Rate Act of 1967, ratepayers with a low income have sometimes been eligible for rate rebates. Most of the recipients are wholly or mainly retired, but not all people in this category are eligible for rebates. In Cambridge Municipal Borough recipients number just over 6% of the number of domestic heraditaments. This is appreciably higher than the average for the country. The average individual rebate, at £22.74 in 1970–71 is also above the national average. In all other parts of the sub-region the number of recipients is proportionally smaller (except in Ely Rural District), while the average rebate is higher only in St. Ives and Saffron Walden. There is some very slight suggestion in this that, even after allowing for factors like the age of the population and property values, there is possibly a slightly

Table 28.3(A) Rate rebates, 1970–71

	Average individual rebate £	Yearly avg. no. of recipients	Recipients as % of domestic heredit'ts
Cambridge MB	22.74	1,865	6.1
Bedford MB	22.96	1,377	6.2
Peterboro' MB	22.65	1,709	7.5
Oxford CB	25.81	2,439	7.6
York CB	12.13	2,504	6.8
Swindon CB	17.08	2,276	7.7
Ipswich CB	15.14	3,175	7.7
Poole MB	27.32	2,925	8.1
Norwich CB	12.64	2.633	5.7
Reading CB	20.28	2,185	5.3
Bath CB	19.19	1,726	5.9
Exeter CB	21.52	1,759	5.7
England and Wales	18.39	–	4.9

Source: Rate Rebates in England and Wales, 1970–71: HMSO

Table 28.3(B) Rate rebates, 1970–71

	Average individual rebate £	Yearly avg. no. of recipients	Recipients as % of domestic heredit'ts
Cambridge MB	22.74	1,866	6.1
Chatteris UD	13.90	170	5.4
Ely UD	15.50	175	5.2
Chesterton RD	17.72	963	5.7
Ely RD	12.00	354	6.5
Newmarket RD	12.41	344	3.9
South Cambs. RD	11.88	513	4.0
Huntingdon MB	17.96	165	3.2
St. Ives MB	23.17	81	4.0
St. Neots UD	17.00	145	3.2
Huntingdon RD	11.18	143	3.2
St. Ives RD	15.78	201	3.8
St. Neots RD	11.56	71	2.3
Biggleswade UD	13.58	165	5.3
Sandy UD	14.28	67	3.8
Biggleswade RD	11.70	450	4.3
Royston UD	16.28	111	4.4
Hitchin RD	20.78	437	4.4
Saffron Walden MB	16.60	142	4.1
Saffron Walden RD	11.95	217	3.0
Haverhill UD	13.73	108	2.6
Newmarket UD	13.21	154	3.5
Clare RD	9.61	80	2.2
Mildenhall RD	10.47	271	3.4

Source: Rate Rebates in England and Wales, 1970–71: HMSO

higher proportion of people on low incomes in Cambridge than elsewhere. This should be considered alongside the evidence of Chapter 20.

Other relevant data appear in Tables 28.2–28.3.

Chapter 29

Offices

The possibility that, if it were allowed to do so, Cambridge could become an important office centre has been mentioned in many discussions. None of the market towns has any substantial office development, although it is perhaps appropriate to say that local government re-organisation could well result in Huntingdon becoming the administrative seat of the new County of Cambridgeshire. Indeed, if it is decided to reject my main recommendations, the movement of a large element of office employment out of Cambridge would be one of the few measures that could be taken to reduce, temporarily, both the traffic and the commercial pressures on Cambridge. But that is to write in a spirit of gloom for the future of the city, rather than of hope.

The policy towards office development underwent a change in 1971. Previously, neither office or warehouse development 'employing an appreciable number of workers' was to be permitted in the city. There was to be only a 'reasonable and moderate expansion of or provision for existing businesses of this character'. Within the central area there was to be no increase in the total amount of floorspace used for existing offices and warehouses (other than the tolerance arising from existing use rights), and permission would not 'normally be granted for the establishment of new businesses of this nature'.

In the Development Plan Review, 1971 this general policy was maintained, but by way of amplification it was noted that "Offices and other commercial development required in relation to the function of Cambridge as a sub-regional centre is acceptable and consideration will be given to the reasonable expansion of office accommodation in appropriate locations".

This opens the door. In theory it is possible to stop offices locating in Cambridge simply as an attractive location, or as an escape from London: but this would succeed only if office blocks were built by the firms who wished to occupy them, and these were tested for their importance to the sub-regional function of Cambridge. Although it is hoped that when planning permission is granted for speculative office development, the eventual occupiers will have local interests, this is by no means certain: nor would it be practicable to ensure this by the use of conditional planning consents.

In December 1972 the City Planning Department showed that the gain in office floorspace arising from redevelopment and land allocated to this use on the Town Map, after allowing

for floorspace lost in various schemes, amounts to over 800,000 square feet. Of this net gain, 344,000 is already under way. Proposals under consideration at that time accounted for another 215,000 square feet. Possible re-submissions of refused applications involve a net gain of 88,000 while allocated land in the Station Road area permits another 154,000 square feet of office floorspace. In all, this could provide a net gain of well over 8,000 office jobs in the City of Cambridge. It is inconceivable that this would not add appreciably to the commercial and traffic pressures on the centre: for even if some office tenants moved out of the centre to these new developments, the facts are that other people would move in to their central area offices, and that the City would be employing 8,000 more people, who would add to the spending in, amongst other places, central Cambridge. If most of this arises out of sub-regional functions it goes to show what pressures are being generated by this function. If it does not, then it shows the weakness of the control.

It was estimated by the City Planning Department that about 80% of the estimated net gain in office floorspace was speculative, and not necessarily related to the City. Most of the speculative office development in the past has been for local and sub-regional services: but then there was what seems to have been a tighter policy, if only in that the loophole had not been spelt out. There is no guarantee that this will continue. People seeking offices usually ask first about how much empty space exists in a place, how much is under construction and how much planned. Accessibility to London and local environment also count.

There is little doubt that if there were a policy of open encouragement of offices, Cambridge could grow as an office centre. To do so in a way that would mean dwarfing the colleges with tower blocks would be wrong. It would also be wrong if the policy accepted is to keep pressure off the city by restricting it. But if a new centre is provided, in the way that has been described in Chapter 7 (Part One), this could well be given a very important vitality through the existence in it of a large amount of good office accommodation.

Chapter 30

Some other aspects of the structure of Cambridge

The population of Cambridge is grouped fairly compactly around its centre, but its distribution has two important special features. The historic and functional centre is substantially north-west of the geometrical centre; and there are important physical separated settlements, that are clearly part of Cambridge in a functional sense. The Cambridge Transportation Study recognised the most important of these as Shelford, Histon, Girton, Fulbourn and Fen Ditton. When these are taken into account we see the historic centre of Cambridge as being very much to the west and somewhat to the north, of the centre of population.

Housing expansion sites, suggested in the Transportation Study Area Review, of which many are now more or less committed, would not fundamentally alter the balance. If anything they would intensify the tendency to an elongation of the settlement pattern along a north-south axis. On the other hand, the City's proposal for further housing sites, although including sites in the south, would involve growth in the east. A study of the commitments within the employment exchange area suggests that they tend to balance out east against west and north against south. This means, of course, an increase in spatial interaction. The western by-pass will facilitate movements from north to south, and especially to the south-west.

The main employment areas are the central area, and a band along or very close to the railway line running north-east and passing very close to the central area. Recent office development has increased the number of jobs in this band. Now about a third of the jobs in Cambridge lie within it, while a roughly equal number are to be found in the central area. The main exceptions to this grouping are at Marshall's Engineering establishments in the east, the grouping in the Castle Hill area of the Shire Hall and Cambridge Scientific Industries, and the University sites in the west.

Land zoned for office, industrial and warehousing uses is, on the whole, well linked to this north-eastern axis along the railway line. An analysis of the sites available, and of the types of firm now existing in this area, suggests that a further very substantial intensification of employment is likely. In many cases it is virtually committed.

The historic centre, blending the colleges and ancient churches with a vigorous open-air market, shops, offices, open spaces and a gentle farmed riverside, faces two major problems. It

Figure 30.1(a) Cambridge EEA population distribution and change 1951-61. Population by parish.

Key

- 100 population base year
- 1,000
- 5,000
- 100 decrease over 10 years
- 100 increase over 10 years
- 1,000
- 5,000

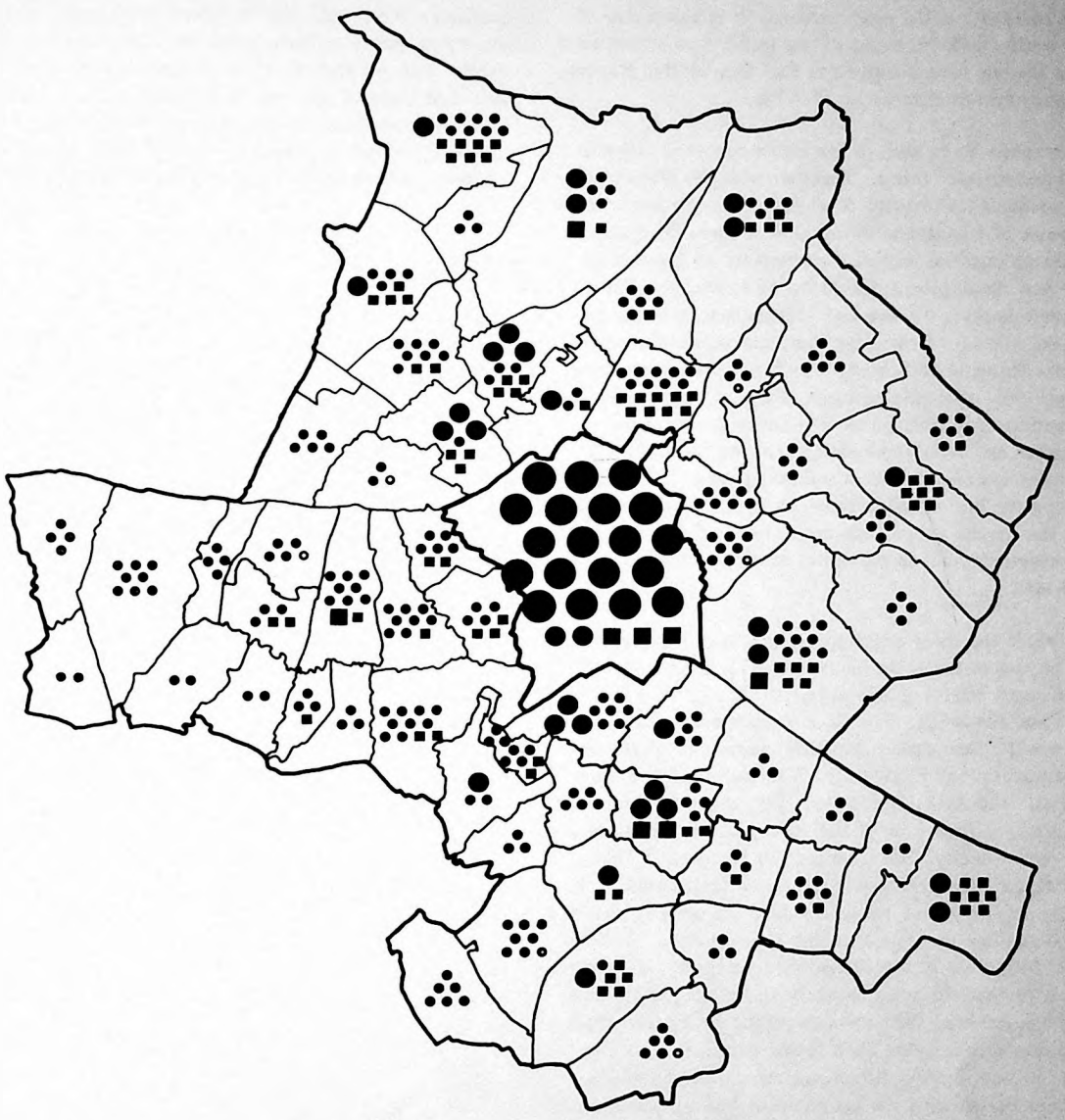


Figure 30.1(b) Cambridge EEA population distribution and change 1961-71. Population by parish.

Key

- 100 population base year
- 1,000
- 5,000
- 100 decrease over 10 years
- 100 increase over 10 years
- 1,000
- 5,000

is at the heart of a radial route pattern. It is also a sub-regional centre, suffering from all the traffic and commercial pressures that we have described in Part One of this Report, as well as in various chapters of Part Two.

The open spaces to be seen in the centre are very important in visual and amenity terms. Together with the abundance of trees amongst low density development in the west, and the presence of a considerable amount of open farmland, they form an essential part of the character of Cambridge, and any new development should try to extend it. This is all the more important when one realises that in southern, eastern and northern Cambridge there are substantial areas of very undistinguished housing with little open space or environmentally attractive features. Parts of Cambridge are very beautiful: but other parts of it are as dreary, undistinguished and even unpleasant as can be found in any British town outside the oldest industrial areas. Substantial areas along the line of the railway, particularly north of the station, and certain other areas are in need of rehabilitation or redevelopment, and in particular need of environmental improvement.

On the whole the town edges are hidden and discrete, limiting the impact of the town on the rural areas and providing dramatic visual effects as one enters the town, especially in the west and the south. The same cannot be said for the entry from the Newmarket direction, along one of the two trunk routes through Cambridge. The A45, and the other trunk route (the A10 running from Ely, through Cambridge to Royston), provide four of the eight main radial roads converging onto the city. We have seen in Chapter 25 that, partly because the existing population commitments in the Cambridge Employment Exchange Area are already virtually the same as those embodied in 'the County Plan' levels for the year 2001 used in the Transportation Study, the road proposals of that study are unlikely to be adequate unless there is a substantial shift towards public transport. Unfortunately, bus services have been losing passengers, mainly because of deteriorating circumstances, caused by traffic congestion. Even with the provision of bus-only lanes and other traffic management schemes, bus services are still likely to be ineffective in this respect unless they are very considerably extended. Cambridge and its satellites have not developed in a bus-orientated way, although the provision of new housing and jobs in the right places could help to bring this about.

Any strategy that we consider for Cambridge has to take these features into account, along with others that have been mentioned in this study. We have to provide a structure that relates to the present pattern of the physical distribution of population, and to the functions performed by people living in various places. We must propose a structure that is capable of coping with journey-to-work trips, which are increasingly directed towards the railway-line band across the city. We also need to provide for trips to other places, and especially for shopping trips, of which so many are at present by car. At the same time we have to safeguard the essential qualities of the central area, by ensuring that pressures on it do not increase, and the special setting qualities. We should try to extend the provision of attractive open spaces to those parts of Cambridge that now lack them. And we should try to ensure that we give the right kind and scale of impetus to the city, so that what is desirable becomes aided by the natural consequences of the impetus, instead of having to emerge from controls and prohibitions, which will always be fought and often evaded.

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